

THE JOURNAL  
OF THE  
ANTHROPOLOGICAL INSTITUTE  
OF  
GREAT BRITAIN AND IRELAND.

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DECEMBER 10TH, 1878.

JOHN EVANS, Esq., D.C.L., F.R.S., *President, in the Chair.*

The minutes of the previous meeting were read and confirmed.

The following presents were announced, and thanks were ordered to be returned to the respective donors for the same:—

FOR THE LIBRARY.

From the AUTHOR.—*Man a Special Creation.* By Dr. William Sharpe.

From the EDITOR.—*Revue Scientifique*, Nos. 22 and 23, 1878.

From the EDITOR.—*Revue Internationale des Sciences*, Nos. 48 and 49, 1878.

From the EDITOR.—“*Nature*” (to date).

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A paper, entitled “*Stones and Bones from Egypt and Midian,*” by Captain R. F. BURTON, F.R.G.S., was read by Dr. C. CARTER BLAKE. Communications on the Skulls brought over from the East by Captain BURTON were contributed by Dr. C. CARTER BLAKE; G. BUSK, Esq., F.R.S., V.P.A.S.; and Professor OWEN, C.B., F.R.S.\*

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\* See “*Journal of the Anthropological Institute,*” Vol. viii, pp. 290-324.

*Some AMERICAN ILLUSTRATIONS of the EVOLUTION of NEW VARIETIES of MAN.* By DANIEL WILSON, LL.D., F.R.S.E., University College, Toronto.

UPWARDS of three and a-half centuries have elapsed since the discovery of America revealed to Europe an indigenous people, distinct in many respects from all the races of the Old World. There, as in the older historic areas, man is indeed seen in various stages: from the rudest condition of savage life, without any knowledge of metallurgy, and subsisting solely by the chase; to the comparatively civilised nations of Mexico, Central America, and Peru, familiar with many of the most important arts, skilled in agriculture, and with a system of writing embodying the essential germs of intellectual progress.

The Western hemisphere, which was the arena of such ethnical development, had lain, for unnumbered centuries, apart from Asia and Europe: and so its various nationalities and races were left to work out their own destinies, and to develop in their own way whatever inherent capacities for progress pertained to them. But, this done, it was abruptly brought into intimate relations with Europe by the maritime discoveries which marked the closing years of the fifteenth century.

From that date a constant transfer of races from the Old to the New World has been taking place, alike by voluntary and enforced migration; with results involving a series of undesigned yet exhaustive ethnological experiments carried out on the grandest scale. There alike has been tested to what extent the European and the African are affected by migration to new regions, and by admixture with diverse races. There can now be witnessed the results of a transference, for upwards of three centuries, of indigenous populations of the Old World to a continent where they have been subjected to many novel geographical, climatic, and social influences. There, too, has taken place, on a scale without any parallel elsewhere, an intimate and prolonged intermixture of some of the most highly cultured races of Europe with purely savage tribes, under circumstances which have tended to place them, for the time being, on an equality as hunters, trappers, or explorers of the vast forest and prairie wilds of the New World.

It is still a favourite opinion with certain writers that some of the inferior races, such as the Australian, are rendered infertile, or incapable of breeding with their own race, after sexual intercourse with Europeans. This has also been affirmed of the Maori, one of the most vigorous of savage races. But such results admit of ready explanation, without assuming any radical

diversities of race. The unrestrained sexual intercourse of the savage woman with such Europeans as are alone tempted to invite it, is most frequently accompanied with the communication of disease: under any circumstances calculated to prevent the propagation of healthful offspring, and peculiarly virulent when first introduced. Among the Maoris, another and no less potent cause of sterility is the habitual promiscuous intercourse of the sexes prior to marriage; and in the case of the female from a very early age. The like causes have been in operation among the indigenes of the American Continent.

Of the mixed African race of America, Dr. Nott, an experienced observer, has affirmed that all Mulatto offspring, if still prolific, tend to run out and become extinct when kept apart from the pure Negro or white stocks. He also states, as a further result of his own observation and study, that the mixed offspring of the Spaniard or other of the darker European races is hardier and more prolific than when the cross is with the fair Anglo-Saxon or German.

Further, he affirms that Mulatto women are bad breeders, liable to abortions, that their offspring generally die young; and that when Mulattoes intermarry they are less prolific than when one of the parents is either of a pure Negro or White stock. As a medical practitioner and a teacher, resident in the Southern States of America, Dr. Nott's opportunities of observation were great; but his conclusions are suggestive, at times, of the influence of the prejudice of race prevalent in the older slave States. For this fact, at least, is very noticeable—that, in spite of many disadvantages, the race of African origin has survived or multiplied in a hybrid succession; while the native indigenes rapidly disappear; and, indeed, this American Negro race seems to promise greater likelihood of perpetuity in the Southern States of North America than the Anglo-American.

Nevertheless, the tide of emigration from the Old to the New World flows on with unabated force, and with all needful diversities of Northern and Southern Europe to give to the experiment the amplest test. From Spain, Portugal, England, Holland, and France, as more recently from Germany, Italy, Poland, Norway, Denmark, and from Russia and Iceland, a continuous Aryan influx has been supplanting the native races of the New World for upwards of three and a-half centuries. It is a voluntary migration, in so far akin to that which followed in the wake of Roman decline, and replaced the decaying Celtic and Latin races with the uncultured vigour of the barbarian North. But in the Europe of the fourth and subsequent centuries, the degenerate inheritors of the civilisation of Greece and Rome were supplanted by hardy,

untutored barbarians, full of youthful vigour, but devoid of the higher elements of social progress; whereas, in America, purely savage races are being superseded by the inheritors of Europe's highest civilisation.

But abundant evidence points to the intrusion into Europe in prehistoric times of one or more races superior alike in physical type, and in the arts upon which progress depends, to the Autochthones, or primitive occupants of the soil: the men of its Palæolithic and Neolithic periods. Further indications have been assumed to point to the contemporaneous presence, in Britain, as elsewhere, of races of diverse type, and apparently in the relation of lord and serf: a natural if not indeed inevitable consequence of the intrusion of a superior race of conquerors.

In America the inaptitude of the native race for any useful serfdom has largely contributed to the introduction there of other and very diverse races from the opposite continents of Africa and Asia; so that now within a well-defined North American area, indigenous populations of the three continents of the Old World are displacing its native races. Still more, all three meet there under circumstances which inevitably lead to their intermixture with one another, and with the native race.

The results are of special interest to the Anthropologist. The Melanochroi, or dark whites of Western Europe, are assumed to represent a mixed race, the peculiar characteristics of which are accepted as indicating the intrusion, in prehistoric ages, of the fair, blue-eyed Aryans on an aboriginal savage race, of which the modern Australian may be accepted as the type, if not indeed the surviving representative.

The succession of races in prehistoric Europe is intimately related to the geological and archæological evidences of the antiquity of man. Special race-types are being definitely associated with successive stages of art. The Anthropologist now recognises the cymbocephalic skull as a characteristic type of Britain's premetallic period; while the brachycephalic skull is associated with works of the bronze period.

Yet it is in examples of the latter type that indications suggestive of the use of the cradle-board have been recognised: as in the Juniper Green skull, recovered in 1851 from a stone cist in the neighbourhood of Edinburgh, and figured in the *Crania Britannica*, Plate XV. It exhibits the same peculiar flattening of the parietal and occipital bones as is familiar in many American Indian crania, traceable to the use of the cradle-board in infancy; and thus points to the nursing of the Allophylian infant, in the nomad life of the brachycephalic Caledonian, after precisely the same fashion as that of the



Indian papoose at the present day. In this way, skulls recovered from modern Indian grave-mounds, and the practice still in use by the nomad tribes of the American continent, throw light on the habits and social life of Europe in prehistoric times. In both cases the flattened occiput is, doubtless, the index of nomadic habits; and has been noted by Gosse, Thurnam, Davis, and others, in skulls from ancient British, French, and Scandinavian barrows belonging to the later period of neolithic art, when traces of primitive metallurgy make their appearance. The form of the skull in itself corresponds to the predominant brachycephalic American type. But while the occipital compression is in some examples very marked, the absence of any corresponding depression of the *os frontis*, such as inevitably results from the modes of cranial modification adopted by the Chinooks and other Flat-head Indians of the present day, seems to show that the European form referred to is essentially different from that of the ancient Macrocephali, examples of which occur on historic sites around the Euxine and elsewhere in Southern Europe. It may be confidently ascribed to the undesigned pressure of the cradle-board on a head of brachycephalic type. But it is not infrequently associated with a later type of dolichocephalic crania, with subsequent modifications, all suggestive of the mingling of native and intruding races.

According to the simple theory of earlier historians, a complete eradication of elder races was assumed; and the historic races were regarded as supplanting and entirely superseding the prehistoric ones: as has actually been the case in Tasmania in our own day. But the ethnical phenomena implied in the classificatory terms of Xanthochroi and Melanochroi involve the survival in the highest type of European man of elements inherited from ancestral relationship with one or more primitive races of lower types.

Various terms, such as Iberian, Silurian, Cimbric, Finnish, and Turanian, have been applied to primitive types, as expressive of the hypothesis of their origin. But on turning to the American continent we see vast regions occupied exclusively until a comparatively recent period by tribes of savage hunters, upon whom some of the most civilised races of Europe have intruded, with results in many respects so strikingly accordant with the supposed evolution of the Melanochroi of the Old World, that we seem to look upon a series of ethnological experiments carried on upon the amplest scale, with synthetic results to a large extent confirmatory of previous inductions.

- The intermingling of very diverse races at present taking place on the American continent includes some of widely diverse

types. There is seen the Portuguese in Brazil; the Spaniard in Peru, Mexico, Central America, and in Cuba; the African in the West Indies and the Southern States; the Chinese on the Pacific; the Frenchman on the St. Lawrence; the German, the Norwegian, the Celt, and the Anglo-Saxon: all subjected to novel influences, necessarily testing the results of a change of climate, of diet, and of social habits, on the ethnical character of each. There, too, alike in the red and the black races, are to be seen the results of hybridity carried out on a scale adequate to determine many important points calculated to throw light on the origin and perpetuation of very diverse races of mankind.

The growth of a race of hybrid African blood has been one of the results of the substitution at an early date of imported Negro slaves to supply the place of the rapidly disappearing Indians who perished under the exactions of their taskmasters. According to careful data set forth in the United States Census for 1850, the whole number of Africans imported up to that date cannot have exceeded 400,000. At present the coloured race—hybrids chiefly—of African blood numbers nearly 5,000,000.

This increase has taken place under very peculiar circumstances—partly favouring, and even forcing increase, but also in part very unfavourable to fertility. But giving the former element of stimulated increase its full value, and with every deduction for the influence of the pure stocks on such increase, it is difficult to reconcile such results with any idea of inherent elements of disease, sterility, and inevitable extinction affecting the hybrid coloured race.

Disease, physical weakness, and sterility in the most degraded class of Mulatto women may readily be accounted for. The recognition of their counteracting influences only renders the actual results the more significant; for the multiplication of the "coloured race" in spite of such impediments seems to be indisputable; and no adequate grounds have yet been adduced to justify the assumption that the millions of the so-called "coloured race" who so largely predominate in the Southern States, and flourish under climatic influences which beget in the white race exhaustion and degeneracy, are destined to extinction. They are, indeed, passing through a critical transitional stage, with the wonted effects of revolution on the feeble and inert; but they show no inaptitude for holding their ground under the novel circumstances of political and social equality.

But it is between the red and the white races that a more natural and unconstrained intermixture has taken place; and as a result of this a new race—as among the hunter tribe of half-breeds of the North-West—is seen in the very process of evolu-

tion. In the interblending of the European and the African races on the American continent both are of foreign origin, and subjected to novel climatic conditions ; whereas in the mixture of the European and Indian races the latter are indigenous, and might be expected to supply an element of greater stability to the mixed race. Other causes, however, more than counter-balance any influences of the native element, and check the multiplication of the half-bred Anglo-American or Europidian. The two races thus brought together are at nearly opposite extremes in the social scale. On the one hand is the European inheritor of all the culture and appliances of the highest civilisation ; on the other is a race of savage hunters in a condition closely analogous to the European savage of the neolithic period. It is indeed a subject of just interest to recognise in the native arts of the New World at the present time illustrations of much to which the attention of the European archæologist is directed in the study of the prehistoric disclosures of the Old World. There, a people may still be studied in their primitive stone period ; others in the rudimentary stages of metallurgic art ; and others again, as in Central America and Peru, who are the inheritors of matured native arts of the potter, the sculptor, the weaver, the metallurgist, and the architect. But among the most interesting and instructive of all the races of the American continent are the ingenious natives of the frozen North. There, within the Arctic Circle, the Esquimaux can still be studied in conditions closely analogous to those which are ascribed to post-pliocene, if not to preglacial man. There, a people may still be seen with no other knowledge of metals than the rare acquisition of a fragment of malleable native copper, or of such iron implements as they derive from occasional intercourse with Arctic explorers. They are now, as ever, a bone and stone-using people, reproducing the same ingenious arts which characterised the neotechnic labours of the Cro-Magnon and Mentone workmen of Europe's reindeer or mammoth periods.

Among the savage aborigines of Western and South America may still be studied the neolithic arts of a stone age as genuine as that of Europe's prehistoric times ; while there also are seen influences resulting from the abrupt intrusion of the matured metallurgic arts of Europe on the first crude efforts of the native savage with the virgin copper which he has learned to hammer into weapons and implements adapted to his simple wants.

Other and not less interesting ethnical illustrations are to be found in the native rudiments of ideography and letters, and the various stages of pictorial and hieroglyphic writing, progressing onward to the very threshold of true numerals and a phonetic

alphabet. But I purpose to limit myself now to the special phases of hybridity resulting from the meeting and mingling of races so diverse alike in all natural and acquired elements as the European, the African, and the aborigines of the New World.

It has long been taken for granted that the Red Indian race is doomed to speedy extinction and is being replaced by the purely intrusive races of the Old World. There is no question, however, that, from an early date, intermarriages have taken place between Europeans and natives, with the result of an offspring of mixed blood, admitted to full social equality with those of pure European descent. Garcilasso de la Vega the historian of Peru, was a descendant, through his mother, from the royal line of the Incas; and Ixtlilxochitl, the old historian of Mexico, was in like manner a native half-breed, and interpreter for the Viceroyalty of New Spain, in the first years of the seventeenth century. Such alliances have been regarded from the first with no such prejudices as tend to preclude all legitimate intermixture of the European and African races. Red Indian half-breeds have long mingled with the Anglo-American population, and shared with undisputed equality in all the rights and privileges they care to claim.

Nevertheless, such examples of a mixed race have till recently been regarded as altogether exceptional; and no one was prepared to question the assumption that the period is by no means remote when the aborigines of America will be represented only by the buried remains which may suffice to illustrate their physical characteristics as well as their crude native arts. But a growing feeling is now manifested in favour of the idea that the Indian is not wholly disappearing by extinction; but that, on the contrary, a much larger amount of healthful intermixture and consequent absorption into the predominant intrusive race has taken place than unobservant critics had any conception of; and that the native element is a factor in the population of the new world, destined to exercise a permanent influence on the Euromerican race. If so, and the result is to be the perpetuation of ethnical traits of the native American man in the descendants of the immigrant races by whom the vast forests and prairies of the New World are being converted to the uses of civilised man, it will be no more than has been already recognised in the dark-complexioned Whites of Western Asia and of Europe. There, indeed, we can only infer the process by existing results; but on the American continent it is seen to be actually going on under circumstances much less favourable than we may assume to have marked the Aryan intrusion into Europe, yet with results by no means insignificant.

In attempting to determine the approximate number of the Indian population either of the United States or of the whole North American continent, so much has been hitherto based on conjecture that it would be unwise to attach much significance to any apparent increase or decrease at successive periods of the aborigines, including those still living in a purely savage condition. But all that we know of the native tribes at the period of their first intercourse with the European intruders shows them to have been in a condition of unstable equilibrium. Hereditary antipathies were perpetuated, and the diverse nationalities were engaged in purposeless exterminating wars and massacres, so as to leave it doubtful if, in the great majority of cases, the natural increase compensated for the destruction then affecting the native races.

Foremost among the aggressive races of the Northern continent, when first brought under the direct notice of Europeans, were the Iroquois, a people intimately connected with the subsequent history of the French and English colonists of North America. They were a powerful confederacy of kindred tribes, full of warlike energy, and all the most prized virtues of the American savage. But their influence and aims were alike destructive; and we can trace to them the depopulation of nearly the whole vast area between the Atlantic and Mississippi. The great mountain chain of the Alleghanies perpetuates the name of the oldest tribe of the United States of which there is a distinct tradition. The fertile valleys of the Ohio and its tributaries were once occupied by their populous towns and villages. The traditions of the Delawares told that the Alleghans were a powerful nation reaching to the eastern shores of the Mississippi, when, in times anterior to any known history, they came from the West into the valley of the Ohio. But the Iroquois, who had established themselves on the head waters of the river system which has its rise immediately to the south of the Great Lakes, combined with the Delawares or Lenapé nation to crush the power of the Alleghans. The surviving remnant was driven down the Mississippi, and they disappeared as a distinct people. The very name of the Ohio is of Iroquois origin, and marks the eradication of the traces of the elder race by their supplanters.

The Susquehannocks, who appear to have been of the same stock as the Alleghans, next excited the ire of the Iroquois, and were in like manner exterminated. At a later date the Delawares became the object of their assault, and the name of the noble river on which they dwelt is the sole memorial of their former existence. So in like manner the Shawnees, Nanticokes, Unamis, Minsi, and Illinois, were vanquished, reduced to



the condition of dependent nations, or driven out and wholly exterminated.

When Cartier first explored the Valley of the St. Lawrence in 1535, he found large Indian settlements at Quebec and on the Island of Montreal, where Champlain, little more than half-a-century later, met with few or none to oppose his settlement. It is most probable that they belonged to the same Wyandot stock which was then retreating towards the Georgian Bay, or withdrawing into the western peninsula between Lakes Huron and Erie, to escape the fury of the Iroquois, who had nearly desolated the Island of Montreal.

The history of French and English settlement in North America is intimately associated with that of the people by whom all this was effected. Their indomitable pertinacity proved more than a match for all the diplomacy and military skill of the French; and as they arrayed themselves from the first in opposition to them, and maintained an uncompromising hostility at a time when the rival colonists of French and English origin were nearly equally balanced, the failure of the magnificent schemes of Louis XIV. and his successors to occupy North America, as Charles V. and Philip II. had held Mexico and Peru, is mainly traceable to their antagonism.

The Iroquois who thus assumed the mastery of a region equal in extent to Central Europe, and changed the whole character of the population of the American continent to the east of the Mississippi, consisted of five tribes or "nations"—the Oneidas, Onondagas, Cayugas, Senecas, and Mohawks. The Onondagas and Senecas claimed to be Autochthones, sprung from the soil on which they dwelt, to the south of the St. Lawrence. A third, the Oneidas, cherished a sacred legend connected with a stone still surviving in their country, in the State of New York, which they revered as the memorial of the Oneidas and Onondagas, both of whom, according to the legend, sprang together out of the ground on the banks of the Oswego River. To the confederacy of the Five Nations, a sixth, the Tuscaroras, was admitted in 1715, on their expulsion from North Carolina; and the Iroquois confederacy has since then been generally designated the Six-Nation Indians. But the term "Nation" is misleading, for at no time during their known history has the whole confederacy been estimated higher than 70,000.

This was the statement of La Hontan; but it appears to have been a mere guess. La Potherie, writing early in the eighteenth century, expresses his astonishment that some four or five thousand Indian warriors should make a whole New World tremble. In reality, even this over-estimated the numbers



of the dominant Indian race. Their audacity and self-reliance were marvellous. Again and again they were decimated by war, and more than once reduced by fully a half. In 1689, at the end of one of their fiercest struggles with the French, the English official estimate reckons their warriors at no more than 2,550; and within twelve years thereafter it numbered little more than a half of this. But they systematically recruited their numbers by the adoption of prisoners. The French *coureurs de bois* or "White Indians" also readily amalgamated with them; nor were instances rare of men of Dutch and English blood adopting Indian life. Hence one early source of mixed blood. Jean de Lambesville, a Jesuit missionary at Onondaga, wrote to Count Frontenac in 1682 that, during the past two years, the Iroquois had recruited their numbers by the adoption of upwards of nine hundred warriors into their tribe. Mr. Lewis H. Morgan, who has given the greatest attention to their history, doubts if they ever amounted to one-third of the highest estimated numbers. They were, moreover, a savage people, still practically in their stone period. Copper was indeed known to them as a kind of malleable stone; but it was obtained in too small quantities to effect any important change on the character of their implements or weapons, and they had no knowledge of metallurgy. The utmost extent of their art consisted in hammering the native copper into a rude axe-blade or tomahawk.

Yet this is the people who wrought such vast changes on the population of the North American continent in the seventeenth and eighteenth centuries. Before either the French or English had come into collision with the tribes to the west of the St. Lawrence, they had doomed them to destruction; and nearly the whole native population of Western Canada had disappeared. In the interval of 75 years between Cartier's first visit to Canada in 1535 and its exploration and settlement by Champlain, the country between the Ottawa and Lake Simcoe appears to have been reduced to a desert. The Wyandots, including the Huron nations on the Georgian Bay, are proved by their language to have been of the same stock as the Iroquois. But the two were at deadly enmity; and in the aimless furor of the latter, nothing would satisfy them but an exterminating warfare.

The English were at that date settled on the Hudson, while the French occupied the Valley of the St. Lawrence. The latter were thus naturally led to ally themselves with the Hurons, who were their neighbours, and with whom they specially carried on the barter for furs. The like motives induced the English settlers on the Hudson to take the side of the Iroquois. But before the English found special reason to court their

alliance they had accomplished their ends in Western Canada, had conquered the Algonquins, and nearly exterminated the Hurons. The Petuns and Neuters ere long experienced the same fate; the Eries, to the south of the great lake which bears their name, were in like manner driven out and disappeared. All this was the work of native aggression, wholly independent of European intrusion. It may suffice to illustrate what was going on elsewhere, and so to account for the sparsely populated condition of vast tracts of North America, which under more favourable circumstances are filling up with the millions of intruders from the Old World; yet not without some permanent traces of intermixture with the aboriginal race.

The entire Indian population of the United States, including Alaska, amounts, according to the latest estimates, to 383,712; that of Canada, according to the official report of 1877, is 99,650; making together 483,362. The idea of the inevitable extinction of the Indian aborigines long controlled all policy in relation to them. They were assumed to be doomed to disappear before the aggressive European intruders, scarcely less under the influences of direct contact with a progressive civilisation, than by means of exterminating border wars, or the vices and wrongs incident to the excesses of frontier life. The very prevalence of this idea long tended to beget results confirmatory of it. Even the benevolent exertions of the philanthropist and the Christian missionary were directed rather to ameliorate the condition of a race doomed to speedy extinction, than to fit them for sharing in the progressive civilisation of their supplanters.

But while it is obvious that native Indian tribes can no more hope to perpetuate their existence as a distinct race, unmingled with the surrounding population of settled states and provinces than the intruded settlers of diverse European origin can preserve their distinctive nationalities, it is apparent, in the latter case at least, that their merging into the common stock by no means necessarily implies their extinction. The Irish, the German, the French, and even the Icelandic and the Russian immigrant, is introduced among a population not so far in advance of himself as to preclude him from engaging on comparatively equal terms in the progressive struggle; nor are the diverse elements of race so marked as to attract any special attention to their interblending. But with the Indian it is wholly different. His habits, ideas, and mode of life have all to undergo a total change; and on any theory of the survival of the fittest, the chances are greatly against him. Multitudes accordingly do perish as the inevitable result of their being brought into contact with a civilisation which is alien to them; but a

growing conviction is now felt that over and above this, there does survive an element of intermingling native blood permanently affecting the Anglo-American population.

The evils resulting from the system of dealing with the Indian tribes long pursued by the United States have latterly attracted increasing attention, with the growth of new States and the extension of railways to the Pacific Coast. In 1870 a commission was appointed by Congress to report upon the more successful system of dealing with the Indian tribes of Canada; and they set forth as one result of their enquiry that "it is now an established fact that the Indians of Canada have passed through the most critical era of transition from barbarism; and the assimilation of their habits to those of the white race is so far from threatening their gradual extinction, that it is producing results directly opposite." In other words, they recognised as an apparently established fact, that so far from the Indians of the provinces of Ontario and Quebec now hastening to extinction, they show a numerical increase during the last quarter of a century. This idea is reiterated, as the result of further inquiries, in a Report on "Indian Civilisation and Education," dated at Washington, November, 24th, 1877; and it is set forth as an idea more and more tending to assume the aspect of an established fact, "that the Indians, instead of being doomed to extinction within a limited period, are, as a rule, not decreasing in numbers; and are, in all probability, destined to form a permanent factor—an enduring element of our population."

That wherever the American aborigines have been gathered together upon suitable reserves, and gradually trained to industrious, settled habits, as among the Six-Nation Indians, or Iroquois, settled on the Grand River, in the Province of Ontario, or where they have mingled on terms of equality with the white settlers, as within the old Hudson's Bay Territory on the Red River, they have after a time showed indications of endurance, is undoubted. But it is not even now sufficiently borne in remembrance that the increase is not that of a pure Indian race.

Prolonged friendly relations with the whites are everywhere accompanied with an admixture of white blood; and in the territory of the Hudson's Bay Company this has been followed by habitual intermarriage, and the growth of a numerous half-breed population, with many indications suggestive of the probable development of a permanent intermediate type, had the isolation of that remote region been perpetuated.

The rise there of an independent half-breed tribe, holding itself distinct alike from the Indians and the white settlers, was for a time a fact of singular interest to the ethnologist. It was the result of alliances, chiefly with Indian Cree women, by the

Hudson Bay men and the fur-trappers of the region. But the latter included two distinct elements: the one a Scottish immigration, chiefly from the Orkney Islands, effected by Lord Selkirk in 1811; the other, that of the French Canadians, who long preceded the English as hunters and trappers in the North-West. The contrasting Scottish and French paternity reveals itself in the hybrid offspring; but in both cases the half-breeds are a large and robust race, with greater powers of endurance than the pure-blood Indian. They are described by more than one acute observer as "superior in every respect, both mentally and physically;" and the same opinion is confirmed by nearly all who have paid special attention to the hybrid races of the New World. D'Orbigny, when referring to the general result of the intermingling of races, says, "Among the nations in America the product is always superior to the two types that are mixed." Henry, a traveller of last century, who spent six years among the North American Indians, notes the confirmatory assurance given to him by a Cristineaux chief, that "the children borne by their women to Europeans were bolder warriors and better hunters than themselves." Finally, of the hardy race of the Arctic Circle Dr. Kane says, "the half-breeds of the coast rival the Esquimaux in their powers of endurance;" and Dr. Rae informs me that there is a fine race in Greenland, half-Danes; and numerous half-breed Esquimaux are to be met with on the Labrador coast. They are taller and more hardy than the pure-blood Esquimaux. Dr. Rae always gave the preference to them as his guides.

In so far, however, as any progressive increase, alike among the Indians settled on reserves and in the half-breeds of the North-West, is a recognised fact, it is important to keep in view how far it is, strictly speaking, an augmentation of their own numbers. On the Indian reserves there is no room for question that the pure-blood Indians are disappearing, and on the older reserves they scarcely survive. A mixed race is growing up, gradually assimilating to the surrounding population, and so disappearing, not by extinction, but like the immigrant foreign population of Europe, by intermingling with the predominant stock.

The same causes tend to impede healthful development among one numerous class of Indian half-breeds, as in other cases of illicit intercourse between civilised and savage races. Scrofulous and syphilitic tendencies lead to the same results, and beget in certain cases infertility, as well as an increased death rate. But where the native and the intruding races meet more nearly on an equality, as among the traders of the fur country, or the farmers and graziers beyond the Rocky Moun-

tains, the result is intermarriage, with a healthy and vigorous offspring; and the same is seen where the civilised red man takes his place on the common equality of citizenship in the general community.

Dr. S. R. Riggs, an active philanthropist of the United States, thus writes of the Dakotas, on the Missouri River: "The more civilised and Christianised portions of our Dakota people are now coming more and more into contact with the better class of white people. Many families and individuals are becoming detached from their own people and merged with the whites. Some of them are mixed-bloods, and all such come to be counted as half-breeds. Many such families are now scattered through the State of Minnesota." Dr. Riggs accordingly recognises as a result of this, that many Dakotas and Sioux are settling on homesteads of their own and in other ways intermingling with the general community, followed by "a proper and desirable mixture of the races, the inferior being elevated and finally absorbed and lost in the superior."

From the first intrusion of the European at the close of the fifteenth century, this admixture of the races of the Old and the New World has been going on. In Mexico, Peru, Central America, the Northern, Southern, and Pacific States, and in Canada, it is the same. Along the borders of every frontier State a nearly exclusively male population is compelled to accept the services of the Indian women in any attempt at domestic life. The new generation presents a mixed race of hardy trappers mingling the aptitudes of both races in the wild life of the frontier. With the increase of population, and the more settled life of the clearing, the traces of mixed blood disappear; but it is to a large extent by absorption into the general stock.

The Cherokees are among the oldest civilised tribes in the United States, and presented in recent years the novel characteristics of an agricultural people of Indian blood, holding African slaves, and intermarrying with white wives. The following is a brief summary of their condition at the successive dates here given:—

In 1809, 12,395, about half mixed-blood: say, half-breeds, 6,100; whites (chiefly wives), 341; negro slaves, 583.

In 1825, 13,563 (increase 1,168); negro slaves, 1,277; ploughs, 2,923.

In 1876, 21,072; increase, 8,677 in 67 years.

But in justly estimating this increase, the white blood must be borne in remembrance as an important factor. Numerically it is so; for the census of 1825 included 68 Cherokees married to white wives, and 147 white men married to Cherokee women. It was inevitable, accordingly, that in 1852 the Indian Commis-



sioner should find, as he notes, "a visible increase in the number of half-breeds"; and if here, as elsewhere, the half-breed is the superior alike in physical and mental vigour, the tendency must be towards the displacement of the pure Indian stock, and the ultimate merging of the survivors into the predominant race.

It has also to be noted, in reference to the progress of the Cherokee Indians, that this was greatly retarded by the extent to which they became involved in the great Civil War: in itself a curious evidence of their assumption of an equal status with the intrusive European race.

The Iroquois still more distinctly illustrate the same phenomena in their more recent history. The Six Nations suffered greatly in the war of 1791, and still more in that of 1812; but in 1845 Schoolcraft reported of them: "Their population has recovered, and is now on the increase," and he states their numbers at that date as—In the United States, 4,836; in Canada, 2,106; total, 6,942. Ten years later, as appears from the census of New York State in 1855, their number stood as follows: Living on Indian reserves, 3,953; abandoned tribal relations, and living among the whites as American citizens, 235. Again, the census of 1865 shows those on the reserves to have increased to 3,992, without further note of those who had forsaken the Indian reserves, and cast in their lot with the general population. In common with all who had previously abandoned the isolation of distinctive race and nationality, they inevitably pass out of the range of such observation, and go to swell the numbers of American citizens, like any other naturalised immigrants; yet their disappearance is manifestly one of absorption, and not of extinction.

Of 27 teachers in the Indian State Schools of the New York State, nine are reported as Indians who have received a thorough education and training in the high schools and other educational institutions of the State; and in 1877 a demand was made for a special appropriation of funds for the training of native teachers. The native school at Cattaraugus, New York, was stated by the Commissioner of Indian affairs to have "an average daily attendance of 90 students. It is instructed by competent Indian teachers, and is in all respects a model school."

The Iroquois of Canada consist mainly of descendants of the loyal Indians who adhered to the British side in the War of Independence, and obtained grants of land in Canada. At the Mohawk settlement on the Grand River they still preserve the silver communion plate, the gifts of Her Majesty Queen Anne in 1711, "to her Indian chapel of the Mohawks," and so presented to them while they still dwelt in the valley of the Mohawk River, in the State of New York. Their numbers are thus re-



turned in the census of the Indian Department in four successive years, showing a progressive increase of 310.

1874	..	..	..	6,845
1875	..	..	..	6,893
1876	..	..	..	6,953
1877	..	..	..	7,155

In this statement are included different bands of the Iroquois on the Thames, the Grand River, the Bay of Quinte, and the St. Lawrence.

On the Grand River Indian reserves the evidences of civilisation are abundant in farm implements, stock, wagons, gigs or "buggies" and other carriages. Neatly-furnished houses also, with pianos, sewing machines, and other appliances of recent progress, no less markedly indicate rise in the social scale, and the growth of true domestic refinement.

The same is the case with the Mohawks on the Bay of Quinte. They are manifestly on the increase.

In 1874 they numbered 784

" 1875	"	"	804
" 1877	"	"	833

But at the same time it is to be noted that only two among the latter are recognised as of pure Indian blood. This admixture had begun before they left their native valley in the State of New York, and indeed had its commencement with their first contact with Europeans.

One interesting illustration of this is supplied by the history of *Stenah*, a Mohawk Indian's wife, the child of white parents, carried off by the Iroquois while still in the Mohawk Valley. She attained to nearly, if not quite, 100 years, knew no language but the Mohawk, and was a thorough Indian in sentiment and feeling. Her genealogical tree, drawn up for me by her grandson, showed a descent from her in all of 80, of whom 57 descendants survive, and 23 had then died. This suffices to illustrate the influence resulting from one source, familiar to border life, of the kidnapping of white children by the Indians; as well as from that other, already referred to, of adopting whites as members of the tribe.

The Hurons, who dwelt chiefly in the region along the great lake which still perpetuates their name, though among the most implacable enemies of the Iroquois, were of the same stock; and, like them, cultivated the maize and other agricultural products to an extent unknown among the ruder Algonquin tribes. The latter are distinguished from them by a radical difference of language; but common interests brought the Hurons into close alliance with them against their own Iroquois kindred.

At the close of the sixteenth century the whole of Western Canada was occupied by Huron and Algonquin tribes, and in 1615 the Huron country was first visited by Champlain.

The early notices of this people have a special interest for us. The route of Champlain, by the river Ottawa and the numerous lakes which lie scattered between it and the Georgian Bay, had led them through savage wilds, sparsely peopled by the Ottawas, Nippisings, and other Algonquin tribes. When at length they reached the fields of maize, and the cultivated clearings of the Hurons, they seemed, in contrast to the wild region of the rude hunting and fishing tribes, to exhibit the industry and wealth of a civilised people. Like their Iroquois kinsmen, they dwelt in palisaded towns; and though still in a condition far removed from any true civilisation, they were among the most remarkable of all the Indian communities of the northern continent. Yet only an interval of 34 years transpired between this first glimpse of their forest towns and cultivated fields, with a population variously estimated from 20,000, to upwards of 30,000 souls, and the reduction of the whole region to a desolate waste.

The French, as has been already noted, allied themselves at an early period with the Hurons against their Iroquois foes; and the Jesuit missionaries were indefatigable in zeal for the conversion of the former to the Catholic faith. But the Iroquois proved the more powerful and crafty of the two; and in 1649 the Huron country was desolated by them, its towns committed to the flames, and a little remnant carried off by the French to Quebec. Even there the Hurons did not escape the implacable enmity of their Iroquois foes. But at length the survivors were established at the Indian village of La Jeune Lorette, on the River St. Charles, and there, after an interval of upwards of two and a-quarter centuries, the census of 1877 reports them as numbering 295.

But they have, to a large extent, lost their language, and substituted for it a French patois; they are Roman Catholics in creed, and have not only ceased to be of pure Indian blood, but they have so largely partaken of the hybrid traces of the predominant race, that were it not for the artificial restraints consequent on their claim to certain allowances and property, as the representatives of the Huron refugees of 1649, they would speedily merge into the common stock, and indeed might disappear, as Indians, almost in a single generation.

Père Bolduc, an intelligent French priest familiar with several of the Indian languages, and fully informed as to the present condition of the little community at Lorette, thus writes: "There may be two full-blooded Hurons, very aged, still existing in La Jeune Lorette, but even these are of ques-

tionable purity." Another correspondent writes of them: "The fact is, it would be misleading to affirm that there are any Indians at Lorette now at all. Some of the so-called Hurons are as fair as any Frenchman, and in many of them you only discern traces of the Indian features. They are undoubtedly the descendants of the Huron refugees of the seventeenth century, but they are far more Canadian than Indian." The result is no more than might have been predicated of the little band of Indian converts maintained for upwards of two centuries in the midst of a friendly foreign race. Nevertheless, it is obvious that it has perpetuated the traits of Indian blood under very unfavourable circumstances; and the present condition of the survivors is in no degree indicative, either of the degeneracy, or the speedy extinction of the half-breed representatives of the old Huron tribes of the Georgian Bay.

But the intermingling of the Hurons with the white race is very partially accounted for, if observation is limited to the community tarrying on the Indian reserve. On a recent visit to the chief Tahourhenche, or Francois Xavier Picard, at La Jeune Lorette, I learned that two of his daughters were married to French Canadians, and a third to a husband of Irish nativity, while his son has wedded a Scottish-Canadian woman. The inevitable result is instructive in its bearing on the question of the unheeded development of a mixed Euromerican race. The offspring of the alliance of the son, Paul Picard with Jane Smith, his Scoto-Canadian wife, will be reckoned members of the Huron community; while those of the daughters, though equally of Indian blood, will follow the fortunes of their fathers, and merge into the general population. As a rule, moreover, Canadians marry, as in the above case, generally with the most prosperous and well-conducted members of the Indian community, and thus not only reduce its numbers, but withdraw from it the more energetic representatives of the aboriginal stock.

I have procured the statistics of eighteen recent intermarriages of Hurons of La Jeune Lorette with whites, including the members of Chief Picard's family. The results are as follows: Ten French Canadians are married to Huron Indian women. One Scottish-Canadian and one Irishman are also married to Indian women. Five Huron Indians have married French Canadian wives; and one Indian, the chief's son, has wedded a Scoto-Canadian wife. Of those the families of the twelve Indian mothers will merge into the general population, and their aboriginal affinities be lost sight of in the second generation. Only those of the six Indian fathers, who retain their interest in

the tribal reserve, will be reckoned as belonging to the Huron community. This may serve as an illustration of the process which has been going on for upwards of three centuries over an ever increasing area of the New World. Yet still, as seen among the great majority of the survivors on the Huron reserve, they retain the modified Indian features and complexion, along with certain marked traits of Indian character; thereby proving the enduring character of the native element, and the influences which it is calculated to exercise on the Anglo-American race. For in the Huron half-breeds of La Jeune Lorette we see the Indian traits surviving in the mixed race, after an interval of 228 years of intimate contact with the predominant European race.

To revert, then, to the process thus illustrated: everywhere colonisation begins with a migration of males. It was so in the primitive dawn; in the intrusions of the barbarians on declining Rome, and of the Danes and Northmen on France and England; and so it has been in the earlier settlements of the American Continent, as it still is in the first occupation of every new territory there. Each septennial census of the United States continues to show a great excess of males in the new States, and of females in New England and other old settlements. The same process has been going on along all the frontier clearings from the very beginning of the sixteenth century, with the inevitable result of intermarriage with native women.

Even the wild native races of the Far West have been considerably modified, where to the superficial observer they remain unchanged. Mr. Lewis H. Morgan, whose opportunities of personal observation among the wild Indian tribes of the United States have been great, thus writes to me of the Kaws of Kansas, the Sauks, the Pawnees of the Upper Missouri, and others of the Indian races still reckoned as of pure blood: "All of those have taken up white blood in past generations, and the rapidity of its dissemination after a few generations needs no proof. I think they have taken up enough, through the traders and frontier men, since 1700, to lighten their colour from one-sixth to one-fourth."

In New England, after the war of 1637 and the extinction of the Pequot tribe, Winthrop states: "We sent the male children to Bermuda, and the women and maid children are disposed about the towns." The result of such a state of things is inevitable in a young colony with the wonted preponderance of males. It is the same process which went on in prehistoric Europe. Doubtless to a large and ever increasing extent, the red race is actually disappearing by positive extinction. But also, to a larger extent than has been hitherto recognised, it is blending by

a process of absorption into the dominant race, not without leaving some enduring influence on the European-American population, both of Canada and the United States.

In the North-West Canadian territory and throughout British Columbia, the population is still of a mixed character, consisting almost entirely of males. Such a state of things as the following is common:—Of 206 settlers at Port Douglas in 1860, only two were females. At Kamloops, on the Thompson River, four women and two little girls were the whole white female population of a prosperous agricultural settlement, when visited by Mr. Sandford Fleming and the surveying party of the Canadian Pacific Railway in 1872. Those may be accepted as fairly representing the normal condition of society in the pioneer settlements of the New World. Alliances with the native women are accordingly inevitable; and on every farm or ranch, a family of half-breed children is growing up, familiar only with the ideas and habits of the European settler; and destined, like the half-breeds of Manitoba, to mingle on perfect equality with the civilised community.

Around every Hudson's Bay factory, a similar half-breed population exists; and throughout all the tribes in contact with them the evidences of mixed blood are obvious. Mr. H. W. Elliot, in reporting to the United States Commissioner on the recently acquired territory of Alaska, says: "The Aleuts, as they appear to day, have been so mixed with Russian, Koloshian, and Kamschadale blood, &c., that they present characteristics in one way or another of the various races of men, from the Negro up to the Caucasian." In 1870, Mr. W. H. Dall estimated the Creoles or half-breeds of Alaska at 1,421, including priests, government officials, and others on a perfect equality with the civilised settlers of European origin.

The later policy and legislation, especially in Canada, expressly aims at the adoption of the civilised Indian into the general community. Provision is made in recent Acts for admitting him to all the privileges of citizenship, in the same degree as is permitted to any European immigrant. But already this had been long secured to men of mixed blood.

During the French occupation of Canada, with the zealous endeavours of the Jesuit and Recollet Fathers for the christianising of the Indians, and the general preference for the hunter life, and a trade in peltries, to the more settled occupation of the agriculturist, a large mixed population grew up, and intermingled on terms of perfect equality with the French Habitans. The slow growth of the colony under French rule made every addition to its settled population welcome; and hence Colbert, in 1660, and Talon, the French Intendant of



Louis XIV, in 1667, both refer to the race of New France sprung from Indian mothers as "a valuable element of the population;" and special reports are made as to their fertility, endurance, &c.

The religious sentiment among a purely Roman Catholic population helped to foster ideas of equality. The gentler social elements of the Frenchman also tended to his more ready adoption of a native wife. Hence, traces of mixed Indian blood among the Habitans of the Province of Quebec are especially common. One intelligent observer, long resident in Lower Canada, thus writes to me: "I do not think that people generally realise the great extent to which there is an infusion of Indian blood in the French Canadian population. In the neighbourhood of Quebec, in the Ottawa Valley, and to a great extent about Montreal, I hardly think among the original settlers there is a family in the lower ranks, and not many in the higher, who have not some traces of Indian blood. At Ottawa, where we have a large French population, I hardly meet a man—and the women show the traces even more readily—where I should not say, from the personal appearance; that there is a dash of the red man." I have observed, moreover, that this reappears from time to time in individual members of a family or in younger generations.

In the older provinces of Canada, as in the United States, the numerical predominance of the European stock, and the constant influx of fresh immigrants, necessarily obscure the mixed native element; but in the great prairie region of the North-West the predominant native stock has placed the two races more in the condition in which they are to be met with in many parts of Mexico, Central, and South America. In Brazil, for example, Mr. Ribot says: "Men of mixed blood, of all degrees of hybridation, are numerous, forming a new population, which is ever growing more indigenous and coming nearer to the white type; and judging from what is taking place all over South America, they will finally absorb all the other elements of the population."

The new province of Manitoba occupies part of the old hunting-ground of the Hudson Bay trappers; the original population is a half-breed one, and it has begun its political existence with a population numbering from 10,000 to 12,000: a hardy, resolute, independent race of civilised hunters and farmers, the offspring of red and white parentage. This is in addition to the much larger number of children of mixed blood, who, following the fortunes of their Indian mothers, grow up members of the nomad hunter tribes. There, more than elsewhere, is seen a condition of things analogous to that which may be assumed to have



produced the Melanochroi of Europe's prehistoric ages, when the intruding Ayrian first came into contact with Allophylian tribes of that neolithic period; and the arts of the metallurgist were—as now in the unsettled territories of the New World they still are to be seen,—slowly superseding the ingenious processes of a purely stone and bone, or of a native copper period.

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JANUARY 7TH, 1879.

JOHN EVANS, Esq., D.C.L., F.R.S., *President, in the Chair.*

The minutes of the previous meeting were read and confirmed.

The following new members were announced—OSBORNE CHARLES VYCE ALDIS, Esq., and E. FAIRFIELD, Esq.

The following presents to the Library were announced, and thanks were ordered to be returned to the respective donors for the same:—

FOR THE LIBRARY.

From the ACADEMY.—Bulletin de l'Académie Royale de Belgique, Tome XLI, XLV; Mémoires Couronnés et Autres, do., Tome XXVII and XXVIII; Mémoires Couronnés et Mémoires des Savants Étrangers, Tome, XL-XLII 4to.; Annuaire de l'Académie Royale de Belgique 1877-78.

From the SOCIETY.—Bulletin de la Société Impériale des Naturalistes de Moscow. No. 2, 1878.

From the SOCIETY.—Jahrbuch der K.K. Geologischen Reichsanstalt. Vol. XXVIII, No. 3; Verhandlungen ditto—Nos. 11 and 13, 1878.

From the SOCIETY.—Mittheilungen der Anthropologischen Gesellschaft in Wien. Vol. VIII, Nos. 5-9.

From the SOCIETY.—Transactions and Proceedings of the Royal Society of Victoria, Vols. XIII and XIV.

From the AUTHOR.—Ethnography and Ethnology. By Elie Reclus.

From the SOCIETY.—Proceedings of the Royal Geographical Society. Vol. I, No. 1.

From the SOCIETY.—Proceedings of the Royal Society. Vol. XXVIII, No. 190.

From the AUTHOR.—The Claims of Psychology to admission into the Circle of the Sciences. By Mr. Serjeant Cox.

From the EDITOR.—Revue Scientifique, Nos. 24-27, 1878.

From the EDITOR.—Revue Internationale des Sciences, Nos. 50-52, 1878.

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The following paper was read by the author :—

A REVISED NOMENCLATURE *of the* INTER-OCEANIC RACES *of*  
MEN.

By Rev. S. J. WHITMEE, F.R.G.S., C.M.Z.S.

THERE is much confusion in the use of Geographic and Ethnographic names in the Pacific. For example, the name Polynesia is used in different senses by different writers. Some employ it as a geographic term for all the intertropical islands eastward of New Guinea and Australia. Others employ it only for those islands which are eastward of Fiji ; and they use Melanesia and Micronesia for those islands which are south and north of the equator from Fiji westward. Those who use Polynesia in this restricted sense, employ it also as an ethnographic term for the brown race of men inhabiting that region. Others who give it the wider signification sometimes speak of the narrower region as "Polynesia Proper," and of the people living there as "true Polynesians." I have always employed Polynesia as a geographic term for all the intertropical islands eastward of Australia, New Guinea, and the Philippine Islands ; while I have used Melanesia, Micronesia, and Malayo-Polynesia for the ethnographic divisions of that region.

While adopting these names, I have never been satisfied with them ; but have tried to find some good distinctive terms which could be uniformly employed and which would commend themselves to the judgment of geographers and ethnologists generally. In the hope that I may contribute something towards a satisfactory settlement of this difficulty, I venture to present this paper to the Institute. I trust members and others interested in the subject who are present, will freely offer all the reasonable objections they can to my proposals, and suggest anything better which may occur to them. My wish is not to force my own proposals, if others better than mine can be found. I am anxious that we should have a good discussion which will result in fixing on such names as may be readily accepted by men of science generally both in Europe and America.

The present appears to be a good time for making a change in names, if one is to be made at all. The islands, people, and languages of the Pacific are now attracting a fair share of attention ; some books are about to be published which will probably be standard works on the geography, ethnology, and philology of the Pacific throughout the civilised world, and these may fix the names used in them for all educated people. To mention only one work which will be shortly published in this country—there is Mr. Wallace's volume on Australasia

and Polynesia in Mr. Stanford's Compendium of Geography and Travel. It is of the highest importance that in that book corrected names should be used, and not the old unsatisfactory ones we now have. And I am happy to know that the nomenclature we fix on here to-night will in all probability be adopted in the ethnographical portion of that volume.\* Indeed, it is mainly owing to Mr. A. H. Keane, B.A., who is preparing the ethnological appendix to the book, that I have ventured to take up this question to-night. He suggested to me the principle which has guided me in forming the new names I have to propose, and also proposed some of the details which I have adopted.

Before entering on the ethnographical portion of my subject, I have one suggestion with regard to geographical names to make, viz.: that Polynesia should be the one and only name used for all the intertropical islands of the Pacific, eastward of the Philippines, New Guinea, and Australia; and that Micronesia and Melanesia, as geographical terms at any rate, be no longer used. Micronesia does not include anything like all the small islets in the Pacific. There are more than eighty atolls in the Tuamotu archipelago alone; and there are others elsewhere which certainly ought to come under Micronesia if such a term be used at all. And Melanesia as now used is not continuous with the race of men for whose sake it was manufactured. If Polynesia be adopted as the one geographical name for all the intertropical islands of the Pacific, it will be as easy to indicate wide districts by east and west, north-east and north-west, as it is thus to indicate the different parts of a continent.

Coming now to the ethnographical names, for the sake of completeness I include in this survey Australasia, the Indian Archipelago, Madagascar, and Formosa, as well as Polynesia. Adopting a suggestion of Mr. Keane's, I have called the people inhabiting this whole region the INTER-OCEANIC RACES. It is convenient to have a general term to use in speaking of these people as a whole; and perhaps this name will serve that convenience.

Inter Oceanic Races of Men.	{ Dark Races. ? Negrito- Polynesian.	{ Austral .. Australia.	
		{ Negrito .. { Andaman Islands. Samang, &c.	
		{ Papuan .. { Aru Islands. Western New Guinea. Western Polynesia.	

\* The names suggested in this paper have not been used in Mr. Wallace's book. See his remarks in the discussion.

Inter Oceanic Races of Men.	{ Brown Stock. Malayo- Polynesian.	Sawaiori ..	{ Samoa. Hawai'i. New Zealand, &c., &c.
		Malagasy..	Madagascar.
		Formosan	Formosa.
		Malayan ..	{ Malays of Sumatra, &c. Javanese, &c., &c.
		Tarapon ..	{ Caroline Islands. Marshall Islands. Gilbert Islands.

There are two broad and very distinct divisions of these people which appear on the surface: the *Dark* and the *Brown* races; the Dark occupying Australia, the Andaman Islands, portions of the Indian Archipelago, and Western Polynesia; the Brown being found in Madagascar, the Indian Archipelago, Formosa, North-Western and Eastern Polynesia, together with New Zealand.

It is an open question whether it is necessary or expedient to give one general name to the dark races. They differ very much, although in some broad characteristics they have affinity with one another. I am inclined to use a name to include the three races; although I am not prepared very strenuously to defend my preference. If we give them a general name, I would propose either *Negrito-Polynesian*, or *Austro-Pacific Races*. For the Brown people I propose the sole use in its widest signification of Baron William von Humboldt's name, *Malayo-Polynesian*. I would like to retain a name which has been already so widely used; but if there be strong objections to this, the term *Indo-Pacific* may serve for them. This latter name would correspond with Indo-European and indicate the geographical distribution of the people.

I. The Dark, Negrito-Polynesian, or Austro-Pacific people, consist of *three races*. 1. *The Australians*, who may conveniently bear the name of the *Austral Race*. Some are inclined to put the extinct Tasmanians with the Australians; but it is extremely doubtful whether such a classification would be correct. The Tasmanians seem to have come nearer to the people of Western Polynesia than to the Australians. 2. The second race is that of which the Andaman Islanders may be regarded as the type. The Samangs of the Malacca peninsula, the Aetas and others of the Indian Archipelago belong to this race; and for them we already have a good name which cannot be bettered, viz.: *Negrito*. 3. The third race is found in Western New Guinea, the Aru Islands, and other places in the Indian Archipelago, and also in Western Polynesia. For these people

there are now two names in use, and the question is, which shall we adopt? *Papuan* has been more or less applied to all of them, and it indicates one of their most striking and most constant characteristics, viz.: their frizzly hair. The other name, *Melanesian*, has been used for that part of the race found in Western Polynesia, but has never been applied to the whole race. I would prefer to see *Papuan* used for all. It appears certain that we ought to have only one name for all who have hitherto been called Papuans and Melanesians, and in choosing between the two I think the former is preferable to the latter.

Some people in the Indian Archipelago have been known as *Alfuros* or *Alfureses*. But I have always had a doubt whether these are a distinct race, and have not been inclined to assign them any distinct position. From recent information it is evident that *Alfuro* is used by the Mahomedans of the Indian Archipelago for pagans, whether they are brown or black people. They speak of "some Mahomedans, some Christians, and some *Alfuros*;" neither Mahomedan nor Christian, but pagan. This fact was brought under my notice by my friend Mr. Keane, and it seems to settle the question about using the name as an Ethnic appellation.

II. We come now to the *Brown People*, found over such a vast extent of Oceania. I hope we shall be able to retain William von Humboldt's name, *Malayo-Polynesian*, for this family; which, according to our present knowledge, I think may be classified under five sub-families or races.

In his useful synopsis of "the languages of the East Indies," Mr. Cust uses "*Malayan*" as a name for the family of languages spoken by all these brown people, with the exception of those in Polynesia. Mr. Cust was confined by the geographical limits he set himself in that work, otherwise, of course, he would have included the languages of the brown Polynesians in that family. But I object to his name "*Malayan*" for the family, which encourages the idea that all the languages are derivatives from the Malay as at present spoken. That, however, I do not believe. I consider the Malay to be one of the most changed and developed languages of the whole family, occupying a position at the top of the tree instead of at its root.

Perhaps you will allow me for a minute to give you my idea of the affinities of these languages and peoples. I believe the parent stock of the whole family once occupied some part of the Indian Archipelago, or the Malacca Peninsula. The earliest migrating branch which separated itself from the parent stock, I believe was that whose descendants are now found in Eastern Polynesia and New Zealand. These people, occupying isolated positions, have retained, to a considerable extent, the language,

customs, &c., of the common stock. All the accretions they have gained have been from their contact here and there with the lower Papuan race, and possibly now and again from the arrival of a few people in a vessel driven from the Asiatic continent or islands. Any accretions thus gained would be very small indeed. But these people, in their small isolated communities, would doubtless lose some of the knowledge and civilisation which they originally possessed. There are evidences that they have deteriorated.\* Hence I should say these Polynesians are somewhat lower now than the parent stock was when their ancestors separated from it, but are comparatively near to it.

At a date considerably later than the first Polynesian migration, another branch broke off from the main stock, and going westward, reached Madagascar. It remains for students of Malagasy to learn at what stage of Malay culture this migration took place. Probably the language will be the best instrument for determining this. From the presence of a few Sanscrit words in the Malagasy, I should think it took place after the Malay was affected by the Sanscrit.

I am unable to express any opinion as to when the people of Formosa were separated from the main stock.

Probably the latest migration was that which went eastward to North-West Polynesia. I imagine that this took place after those remaining in the Indian Archipelago had long been scattered through the various islands, and that these people went from one or more of the Eastern branches.

Now comes the question: are all the brown people at present found in the Indian Archipelago portions of one race? We know some—especially French writers—say, No. I cannot enter here into any arguments on this subject; but will simply say I believe they have all sprung from the same root stock, and that the isolation of some, and the greater contact of others with civilising, and other influences have produced the differences now found in them. Mr. Keane has called my attention to one most interesting fact bearing on this question, viz.: that the people found on the chain of small islands west of Sumatra, and who have been isolated from those on the larger islands, in some respects very closely resemble the Eastern Polynesians; in fact, they appear, to a great extent, to have retained what we may imagine the primitive condition of the whole family to have been at the time of the earliest migration.

For the branch of this family now in the Indian Archipelago, I propose to retain the name *Malayan*. Under this generic term will come the specific names Malay, Javanese, &c.

\* See on this point, "Ethnology of Polynesia," "Journ. Anthropol. Inst.," Feb. 1879; pp. 261-74.



For the two Eastern branches of the Malayo-Polynesians, I have to propose entirely new names. That in Eastern Polynesia and New Zealand I wish to call *Sarwaióri*. This word is a compound formed from the names of three representative peoples of that race; *Sa* from Samoa, *wai* from Hawai'i (or I might say from the traditional Hawai'i or Hawaiki, which they say was the home of their race before their migrations), and *óri* from Maori. I know the principle of compounding names in this way has not met with much favour in this country. But Mr. Keane has pointed out to me one precedent. The word *Horsoks*, a collective name for the people of North Tibet, is compounded from *Horpa* and *Sokpa*.

*Sarwaióri* may not sound particularly euphonious to those who hear it for the first time, but I think it will pass muster on this ground when we get accustomed to it.

I propose this name because these people have at present no name by which they, as a whole, are known to themselves, and because we have no good name for them. I know a proposal has already been made before this Institute to give a name to them, and something must be said in this connection on that proposal. In a paper which contains many other statements I should not like to endorse, Mr. Rankin says these people have "one family name by which they call themselves." And he explains that "as the dialects vary, as one group use the *r*, which another cannot pronounce, one the aspirate, another none, so the name of their race varies in different islands, but is always the same root. That name is *Mahori* in most southern groups, *Mahoi* in some, *Maori* in others. The first form *Mahori* would be recognised by the great majority as their own name, as distinctive from any Papuans or other foreigners."

If Mr. Rankin were correct in making that very positive statement, plainly *Mahori* would be the proper name for us to apply to all these people. But such is not the case. The word, as he gives it, does not occur at all in the languages of these people. In the Tahitian it has an aspirate before the final *i* and becomes *maohi*; but nowhere has the second syllable an aspirate. The objection, however, to the word is, that in the languages where it occurs it is simply an *adjective*, which means true, real, and which has thus come to mean indigenous in contradistinction to that which is strange and foreign. In Tahiti, *taata maohi* means men of the soil; but the word may be used with other substantives to indicate native trees, native animals, or anything else which is indigenous. Even in the language of New Zealand the word is an adjective:—*wai maori* is true water: *i.e.*, fresh water, to distinguish it from salt or sea water. In the same way *tangata maori* is a true man—a native. *Maori* as a

substantive is not found in the New Zealand dictionary; and I doubt whether its use as a substantive for the Maori people is a purely native use of the word at all. In Samoa *tangata maoni* (or rather *tangata fa'amaoni*, which alone would be good Samoan) would mean a true, honest, or correct man and never a native, unless it were used in such a sentence as *O le tangata fa'amaoni o le nu'u*, a true man of the place. From this you will see Mr. Rankin's proposed name has no claim whatever to the place he would give it.

For the people in North-West Polynesia hitherto known as Micronesians I also have a new name to propose, viz.: TÁRAPON. This is from *Tárawa* in the Gilbert group; and *Ponape* in the Caroline, or *Ebon* in the Marshall Archipelagoes. The *t* and *p* being interchanged, the latter part of the word will represent both the Caroline and the Marshall Islands. *Ebon* and *Ponape* are the two islands in those archipelagoes about which we know most, and they may be considered fairly representative. I take the first element of the compound from *Tárawa* rather than any other atoll of the Gilbert Group, for the following reason. When Mr. Horatio Hale prepared his great work on the Ethnography and Philology of the United States Exploring Expedition, he adopted the word *Tárawa* for the Gilbert Island language. This is the name of one atoll only, the natives having no general name for the group. He has given a short grammar and vocabulary of this *Tárawa* language which philologists who have seen his book may remember. I think his name is therefore entitled to consideration; and in making this wider generalisation I take the first part of the name he adopted.

The people of Madagascar and Formosa of course need no new names. Malagasy and Formosan may be kept for them.

I have not assigned any special place to the Motu and other people of Eastern New Guinea, for the simple reason that their relationship with the other people has not yet been ascertained. There is little doubt but they are more or less mixed. We may, when we know more about them, have to call them sub-Malayan, or sub-Sawaiori; just as I think it will be convenient to call some of the mixed people in Fiji, the Loyalty Islands, New Hebrides, &c, sub-Papuan, to indicate that they are not pure Papuans.

My general scheme is set forth in the plan on pages 361 and 362.

It may be convenient, in conclusion, to recapitulate the changes proposed in this paper:—

1. To use Polynesia as the only geographic term for all the inter-tropical islands of the Pacific, eastward of the Philippine Islands and New Guinea, and to cease using Melanesia and Micronesia.

2. To employ the names Austral, Negrito, and Papuan for the three dark races.

3. If any general name be employed for these three races, to call them Negrito-Polynesians.

4. Uniformly to use the name Malayo-Polynesian for all the brown people in Madagascar, Formosa, the Indian Archipelago, North-Western and Eastern Polynesia and New Zealand.

5. To call those in the Indian Archipelago Malayan, those in North-West Polynesia Târapon, and those in Eastern Polynesia and New Zealand Sawaiori.

6. Perhaps to distinguish those people who are considerably mixed by the terms sub-Papuan, sub-Sawaiori, &c., &c.

#### DISCUSSION.

Mr. A. R. WALLACE was sorry the paper had not been read some months earlier, as it might have somewhat affected the nomenclature he had adopted in a work on the geography of Australasia now passing through the press. He thought Mr. Whitmee's proposed alterations far too large and radical to have much chance of being adopted. Names already in use, and with a definite meaning, should not be changed without very weighty reasons. He thought "Melanesian" a good word, and generally understood. He, like Mr. Keane, objected entirely to the term Malayo-Polynesian as being wrong and misleading from a physical point of view. It implied that the Malays and the brown Polynesians were close allies; whereas they were really very remote allies, and the Malays were certainly much more nearly related to the natives of Burmah or even of China. To use the word Malay at all in connection with the Polynesians was misleading, as it implied a theory which was almost certainly wrong. There would perhaps be no harm in using the term Indo-Pacific, as suggested by Mr. Keane for all the insular races, but otherwise no general term was needed. He thought that the general principle of priority in nomenclature should apply in anthropology as in natural history; and therefore, if any new term was applied to the Polynesians, Mr. Rankin's word "Mahori" should have the preference. It is euphonious, it implies no theory, and on Mr. Whitmee's own admission it was applicable, as meaning "indigenous" among the Polynesians themselves. As regards the black woolly-haired races, Papuan was certainly a good term, because it meant frizzly-haired, but it had come to be somewhat restricted to the natives of New Guinea itself, and its immediately surrounding islands. If used as a general term, it might be modified into Papuanese, which might include all the tribes or races from Flores on the west to Fiji on the east, the old term Melanesian being restricted to the frizzly-haired natives of the Pacific, east of New Guinea. Micronesia also was a term generally understood, and very useful as defining the small islands to the north of New Guinea, and east of the Philippines. It was a useful

geographical term, and implied no theory as to the people inhabiting the islands, who were more or less of mixed races. He thought Papuanese (or Melanesian) if adopted as a general term for the Eastern frizzly-haired people as contrasted with the African or Western, should include the Negritos as a matter of convenience, and because Dr Beccari had stated that he had seen some people from the interior of New Guinea, who very closely resembled them. If it should turn out that there were intermediate tribes between Papuans and Negritos, notwithstanding their considerable cranial differences, we should find the convenience of having one term to include the whole, just as the general term Negro includes the whole of the woolly-haired races of Africa, among whom somewhat analogous differences occur.

Professor FLOWER, F.R.S., said that he never entered into any questions bearing upon the revision of existing nomenclatures without thinking of two fundamental principles laid down by two leaders of our branch of science. Professor Owen once wrote that "the sooner a term becomes an arbitrary sign the better."\* Professor Huxley tells us that "it is better for science to accept a faulty name which has the merit of existence than to burden it with a faultless newly invented one."† But as knowledge increases, new words must be introduced, and the meaning of old ones must be restricted and defined, and if the subject is approached with caution, judgment, and a due sense of responsibility, as appears to be the case in Mr. Whitmee's communication, science may be advanced by their revisions. As Mr. Whitmee has invited criticisms, he ventured to offer some, although most of the points raised required more careful consideration than could be given to them in one evening. With regard to the term "Inter-Oceanic," it did not seem to him any improvement upon the generally used and well understood "Oceanic." He also would scarcely like to supersede "Micronesia," at all events as a geographical term; for such an objection as that, there were small islands in other parts of the world, to which might be applied a vast number of other names commonly in use; and he was not sure that the people inhabiting this region were a sufficiently distinct race to require a special designation, as they appear rather to be hybrids formed of several other races. For the light brown people of the Central and Eastern Pacific, Mr. Whitmee's "Sawaïori," he had himself been content to use the old word Polynesian, restricting it for the future to this race. For the dark people with frizzly hair, inhabiting mainly the Western Pacific, he preferred the term Melanesian; although much was certainly to be said for the older word Papuan. He doubted whether any general term was required to include the Negritos of the Andaman Islands, and the Papuans and Melanesians; as no definition could be given of these groups, which would exclude the African negroes and even the bushmen. Except the dark colour and woolly hair, there were

\* "Trans. Geological Soc.," 1857, p. 55.

† "Critiques and Addresses," p. 153.

scarcely any physical characteristics common to the natives of the Andamanese and the New Hebrides.

Mr. WHITMER: In reply to the remarks of Mr. Wallace, Mr. Keane and Professor Flower, I may say, I have retained Malayo-Polynesian out of respect for Baron W. v. Humboldt, and because it is in use; otherwise Indo-Pacific would doubtless be the better term. I am prepared to accept Melanesian, or any other name which may commend itself to ethnologists; but I must except "Mahori," which I think I could never accept. The brown Polynesians (Sawaióri) I do not regard as a mixed race; they are the purest of the whole family. Those in North-West Polynesia (Tárapon) are mixed, quite a hybrid people. The blacks cannot be put under one term if it is to imply any close connection. The Australians are very different from the others. Negrito-Polynesian, if used, would be simply a convenient geographical name for the blacks of this region. But I am not prepared strongly to press the adoption of that name.

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The following communication, entitled "Ethnological Notes on the Motu, Koitapu, and Neighbouring Tribes of New Guinea," was contributed by the Rev. W. G. LAWES.

ETHNOLOGICAL NOTES *on the* MOTU, KOITAPU *and* KOLARI  
TRIBES *of* NEW GUINEA. By Rev. W. G. LAWES.

THE following paper is intended to be a sequel to one by Dr. W. Y. Turner on the "Ethnology of the Motu" which was read before this Institute and published in the Journal for May 1878. The information contained in it has been gathered during three years' residence (from December 1874 to December 1877) at Port Moresby.

I would repeat the caution given by Dr. Turner in his paper in reference to the size of New Guinea and the necessity of specifying with exactness the district about which statements are made and information given. This caution is more important in reference to the people than to the country; the diversities of race and tribe are so numerous. An illustration of this may be found in the fact that twenty-five different languages are certainly spoken on the 300 miles of coast extending from Yule Island to China Straits. Many of these are, of course, dialects, but they differ from each other as much as those spoken on the different islands of Polynesia.

Port Moresby is in lat. 9° 30' S. and long. 147° 10' E., it is the centre of the Motu district which extends 18 miles to the east, and 30 miles to the west.

My knowledge of the Motu tribe is the greatest, but as Dr. Turner has treated of it so fully in his paper, I shall simply



supplement his statements by a few respecting the Motu and then proceed to the Koitapu and Koiari tribes.

In reference to the tatooing of the women.

There is but little variation in the pattern and style, but this seems to arise rather from inability to design new, than from any special attachment to the old. They were glad to get new patterns from some of our printed calicoes and other English designs. They attach great importance to the tatooing as a means of enhancing beauty. A woman lighter than usual is esteemed handsome, principally because the tatooing shows up so much better on the lighter skin.

The Kerepunu women at Hood Bay are tatooed, and there is no essential difference in pattern from that of the Motu.

Some of the men are tatooed across the chest and forehead; but in their case it is a decoration of honour. It means that the wearer has shed human blood, or in plain English, that he is a murderer. It is the ambition of every young man to get tatooed. Raids were sometimes made on small villages along the coast for the simple purpose of killing some, that the young men may come back and be tatooed. It was no uncommon thing to hear men quarrelling, and one saying to the other, "Who are you that you should talk? Where are your tatoo marks? Who have you killed that you should speak to me?"

The tatooing is done by marking the pattern on the skin with lamp-black and water, and then puncturing the skin by lightly tapping a thorn on it. The whole of the pattern is gone over in this manner, and but little pain or inflammation seems to result from it.

A system of *taboo*, such as that which prevails in Polynesia is practised by the Motu. The fruit of a tree, for instance, is tabooed by plaiting a cocoanut leaf round the trunk. When a man is taboo, he lives apart from his wife, and his food is cooked for him by his sister. It is worthy of note that a man is taboo after handling a dead body: generally for three days, during which time he does not touch food with his hands. At the end of that time he bathes and the taboo ends. On a variety of occasions and things the taboo system comes in practice.

The belief of the Motu respecting their dead is that the Tirava, or spirit, goes away out to ocean space (Taulu), which seems to be their Hades, and then to Elema, where he feasts on sago, and rejoices in plenty. Elema is the district about Freshwater Bay where the Motu go once a year for sago, and which is to them a paradise of plenty and animal enjoyment. Similarly at Kerepunu (Hood Bay), the spirits of the departed go to the mountain tops where they feast and chew betel-nut *ad libitum*. In each

case it is the district whence their choicest food in the greatest quantity comes.

A woman died at Port Moresby just before I left. When the body was laid in the grave, the husband threw himself on it and quietly sobbed out his grief. After a while, his friends attempted to lift him off, but he said, "Stop a minute." He then put his mouth to her ear, whispered for a minute or two, and then allowed them to remove him. He asked her not to be angry with them because they could not give her a share of their feasts, and when they should go inland hunting, or to sea fishing, that she would watch and protect them.

The legends of a people are often helpful in tracing their origin.

The Motu have a legend of the origin of fire amongst them which is as follows:—

Our ancestors used to eat their food raw or cooked in the sun. One day they saw smoke at Taulu (*Taulu*—ocean space). The dog, the snake, the bandicoot, a bird and kangaroo all looked and exclaimed, "Smoke at Taulu," "Smoke at Taulu," "The Tauluites have fire. Who will go and fetch us some?" The snake went, but the sea was rough and he soon came back. The bandicoot tried and he returned. The bird started but the wind was strong and he could not fly, so he came back. Then the kangaroo went, but he had to return. Then the dog said, "I'll go and fetch the fire." He swam until he reached an island. He landed, saw a fire and women cooking; they said, "Here's a strange dog, kill him, kill him!" But the dog seized a burning firebrand by the unburnt end, and jumped into the sea. He swam back, the people watching him from the shore as he came nearer to the land with the smoking firebrand. He landed, and the women rejoiced to have fire, and women came from other villages to buy it of them. Soon after the dog landed, the other animals were jealous and abused him. He ran after the snake and he went into the earth, in a hole. The bandicoot did the same. The kangaroo went to the mountains, and there has been enmity ever since between the dog and the other animals.

I now pass from the Motu to the Koitapu. The Koitapu are now for the most part to be found living at one end of the Motu villages, although preserving their distinctness and separateness. They are also to be found in little groups of a few houses, a little way inland, or on a hill overlooking the sea, all through the Motu district.

In *physique*, there is but little difference between the Koitapu and Motu. The typical Koitapu man is slightly darker in colour than the Motu, though by no means so dark as the coast tribes

to the west of Yule Island. The hair is frizzly, not woolly, the forehead is perhaps more receding than in the Motu.

The principal differences between the Motu and Koitapu, are the following:—

*Language.*—This is essentially different from the Motu and all the coast dialects. It is closely allied to the language spoken by the Koiari or mountain tribes, but differs from Malayan or Malayo-Polynesian. In a vocabulary of 250 words which I collected, there are only 12 words which have any affinity for coastal dialects or Malayo-Polynesian, and these are probably borrowed from Motu, or *vice versa*.

The word for "spirit" among the Koitapu is the Polynesian "Tua."

*Food and Cooking.*—The second marked difference is in their food and mode of cooking. Their bill of fare is more extensive than that of their neighbours. They add to it, birds, snakes, lizards, dogs, cuscus, echidna, and some kinds of ants. The Motu natives are careful and nice in their diet. The Koitapu will eat anything they can get their teeth through. The Koitapu mode of cooking is the same as that prevalent in Polynesia, viz.: with hot stones, and also by roasting. A light framework of sticks is erected, the meat is placed on, and a slow fire kept up beneath until the meat is dried rather than roasted. This plan is generally adopted when they are out hunting and wish to preserve large quantities of meat to take home. The Motu mode of cooking by boiling in earthenware vessels is largely practised; but this is a borrowed custom.

*Ornaments.*—In these they are distinct from Motu and coast tribes.

The breast-plate or charm is spoken of as "kepore" by Dr. Turner, and mentioned among Motu ornaments. It belongs to the Koitapu, and though worn sometimes, and prized by the Motu, is not of Motu origin. This ornament seems to be worn by aborigines of very different parts of New Guinea. It is described at Humbolt Bay, on the north coast, by the "Challenger," and is also found at Orangerie Bay on the south-east coast. It is a charm as well as an ornament, and when held between the teeth, is supposed to strike terror into their adversaries, and to give the wearer victory over them.

The lupu or feather head-dress is also a Koitapu ornament, and seems to be very widely distributed over New Guinea.

The nose is pierced as in the Motu, but the nose stick is less commonly worn.

The long mop of hair, the young men's pride, is often confined in a piece of thin cloth made from the bark of the paper

mulberry, and sometimes in a hair net, made expressly for the purpose.

*Weapons and Manufactures.*—The weapons used by the Koitapu are the stone club and spears. The bow and arrow is not used by them, but is confined to the coast tribes. The spears are made of one piece of wood, and are often very carefully carved. All the cutting tools are of stone and shell.

The Koitapu make mats quite different to those on the coast and resembling the common Chinese matting. To them also is assigned the knowledge of making the netted bag, now common on the coast. This is made also by some of the tribes in Australia. It is the only case in which I have seen an Australian article in New Guinea.

The Koitapu do not know the art of making pottery, except in a very few cases where it has been learnt from the Motu.

The Koitapu are hunters, not fishermen. They possess no canoes and have nothing to do with the sea; but they excel in hunting the kangaroo and wild pig, and are superior to the Motu in the chase. They barter large quantities of kangaroo meat to them for fish, &c.

Without presuming to express an opinion on the difficult question of the races inhabiting South-East New Guinea, I have been led to believe that the Koitapu and Koiari are the aborigines of this part, while the coast tribes are settlers, and probably of Malayan origin. The coast tribes, while the conquerors of the others and their superiors, have yet a superstitious fear of the Koitapu and Koiari. Any calamity befalling them is attributed to the power of these inland tribes. Many of the Koitapu are shrewd enough to take advantage of this, and by assuming supernatural power, extort large presents from the Motu.

In 1876 an expedition left Port Moresby and neighbouring coast villages, to get sago from the west. As they were returning, the sea became rough and they were obliged to throw a good deal overboard to save their frail canoes from total wreck. A tribe from Hood Point had been waiting for a share of the sago, and were angry at the small quantity; but instead of venting their anger on the tribe who had been unfortunate, they laid in wait outside the Koitapu village and killed the first man who passed. This was done, they said, to revenge their bewitching the canoes and making them unfortunate.

They are supposed to be able to prevent rain from falling. Last year was one of prolonged drought. A Koitapu village was said to have been the cause, and a party of Motu ultimately went to wreak their vengeance on the poor fellows living in that village. Some eight or ten were killed, and as the drought

had long continued, rain soon followed this murder and confirmed the natives in their superstitious belief. Disease among the Motu is always attributed to evil spirits. No man is thought to die of disease, but is killed by Vata, the prince of evil spirits. The Koitapu are supposed to possess power over these. The first thing a Motu man does when anyone belonging to him is dangerously ill is to go to a man, or oftener a woman, of Koitapu, with large presents that they may loose the power of the evil spirit over the sick man. In some cases the woman comes and sucks the seat of pain in the patient and pretends to extract from it little pellets of fibre or stones, &c. The custom is precisely the same as that described by Sir J. Lubbock in "Origin of Civilisation," pp. 27, 28.

The Motu are afraid to go out at night for fear of ghosts. The Koitapu have no such fear, but often travel inland at night. The coast tribes fear the gods of the land, and in case of calamity appeal to the owners of the soil to propitiate the gods, or wreak upon them their vengeance in revenge for what they have suffered.

There are many indications that the Koitapu are now but a small remnant of what was once a numerous and powerful tribe. The natives of both races say such is the case. The many deserted sites of villages with skulls and bones here and there support this statement. Between the coast tribes who have driven them inland, and the Koiari or mountain men, their ranks have been decimated. They now live for the most part alongside the Motu villages, but always distinct from them. Internarrriages, however, take place between them. During the hunting season it is quite common for them to camp inland for many weeks at a time, coming down to the coast occasionally to visit their houses and barter their kangaroo meat.

Closely allied to the Koitapu are the mountain tribes called Koiari.

These inhabit the mountains at the back of the Motu and Koitapu district, and consist of a number of scattered tribes. They are inferior in *physique* to the Motu, and generally to the Koitapu, but are more numerous than either. They are generally small in stature, dark in colour, and dirty in their persons and habits. Their hands and feet are remarkably small. They are much more hairy than the Motu. Many of the men have beard and whiskers. They seem, however, to present great differences: some seem to resemble some of the Australian tribes; a noticeable feature in others is the hooked nose spoken of by Mr. Wallace as characteristic of the true Papuan; others have quite a Chinese appearance; while others might lead one to fancy that New Guinea was the refuge of the ten lost tribes.



The villages of Koiari are built on the ridge of a hill, and generally command a view of all the approaches to it. The houses are built on piles, raised 5 or 6 feet above the ground, while in almost every village is one house high up in a tree. One deserted village, named Moumile, which I visited, consisted largely of tree-houses. One tree contained four houses at different heights, the highest being quite 60 feet from the ground. Ladders of rattan cane and vines led up to these.

The Koiari, like the Koitapu, are great hunters, and descend often to the plains to hunt the kangaroo and pig. Their language is very similar to the Koitapu, the difference being only dialectal.

They cook their food the same as the Koitapu. They fetch their water in bamboos. They cultivate the soil and fence in the gardens, but with split wood placed longitudinally, instead of upright, as the Motu. Their gardens in the ravines and gorges of the hills are very fruitful. Tobacco is cultivated, and forms an article of barter with the coast tribes. They have a custom in smoking similar to that of drinking healths. They sit round the fire, and having filled their bamboo pipe, shout out a name before they take their whiff. In my case I was their guest, and had given them some foreign tobacco, and they wished to honour me. They shouted as they took the pipe "Misi Lao kuku e!" (Mr. Lawes tobacco, oh!) and "Misi Lao biaki" (Mr. Lawes' our friend). Far into the night were to be heard the shouts of "Misi Lao kuku e."

The women of the Koiari seem to be more degraded than among the Motu and Koitapu, and polygamy is more common. We were shown just outside a Koiari village the newly-made grave of a wife of the chief. He had two wives; this one displeased him, and he immediately speared her to death. I was told that this was no uncommon case.

The treatment of the dead differs from that of both Koitapu and Motu. When a chief or any one of importance dies, the body is not buried, but laid out in the house. In the village of Kininimu, which I visited, several such proclaimed themselves to the least sensitive nose as we walked through the village. A chief whom I knew, and visited 18 months before, had died, and was in the house next our tent. After sunset, the young girls of the village sat round, and sang extempore songs in a low plaintive key which sounded among the hills pathetic and beautiful. We were told that this was done every evening. After a few weeks the body is placed on a platform of sticks up a tree in an exposed position. A fire is lit underneath and between the smoke of that and the rays of the sun, the body soon becomes perfectly dry. We saw one or two with the knees tied up as when sitting, while the parchment-like skin had split on the skull, showing one half white

and the other brown. When they have become thoroughly dry and fall to pieces, the bones are wrapped up in a bundle and hung in the house where the man lived, or in a tree close by. Two skulls from these bundles may be seen in Dr. Rolleston's collections at Oxford. The mode of salutation with the Koiari is peculiar. When I arrived at one of their villages, a chief, whom I knew, put one of his arms round my neck, and began fumbling about at my throat. I wondered what he wanted, but presently found that he was feeling for my chin. They salute their friends by chucking them under the chin.

The Koiari, in common with all the tribes in this part of New Guinea, are chewers of betel-nut. It grows on their mountains plentifully, and is much coveted by the coast tribes, with whom it is an article of barter for cocoa-nuts which do not grow in the interior.

These mountain men are very anxious to get salt. They never go down to the coast without taking back bamboos full of sea-water, and sometimes staying long enough to boil it down and take it back in a solid form. One of the most acceptable presents I could take to these inland villages was a little salt. They would eat it alone or chew it with ginger or their betel-nut.

In concluding this paper, I may state that I had intended comprising in it an account of another tribe, the Kerepunu, at Hood Point and Bay, but the length of this led me to reserve it. It is at the disposal of the Institute, if at some future time it would be of use or interest.

In connection with our mission on New Guinea, we have now a larger number of stations occupied along the coast, and for myself and colleagues I may express our willingness and pleasure to contribute in any way we can to the interests of science or commerce. A large number of Polynesians are associated with us in our work, and it is worth noting that the pioneers of civilization and Christianity on New Guinea are the children of savages and cannibals in many respects worse than those in New Guinea to-day.

#### DISCUSSION.

Professor FLOWER said that he was sure that all present would join in thanking Mr. Lawes for his interesting communication, and also for the promise of future additions to our scientific knowledge from himself and other members of the mission to which he belonged. He hoped that besides the valuable contributions they were making to our information about the manners, social condition, and language of the interesting people they worked among, they would also endeavour to obtain more evidence of their physical

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characters, especially as shown by their skulls. The single specimen exhibited was not sufficient to draw any general conclusions from with safety, but as far as it went, it was of importance, as it showed (as might be expected from the evidence), somewhat mixed characters, though on the whole, most inclining to the Melanesian type, so much so that he would have no hesitation in saying (even before he had seen the photographs exhibited) that the individual to whom it belonged had hair of a frizzy, if not quite frizzly character.

Mr. A. R. WALLACE said, that he had seen much of the Papuans of the north-west of New Guinea, and had read almost all that had been written about the natives of the south-east part of the island, and he considered it proved that the latter were a mixed race; intrusions of brown Polynesians, and perhaps of the natives of some of the Melanesian islands, having occurred in successive waves, probably from a remote antiquity, thus producing the various mixtures of type, and relics of Polynesian and other customs. There was also said to be an undoubted Polynesian element in the language of the Motu and other coast tribes. With regard to the Papuans themselves, he believed they formed a very well marked and distinct, though variable race, occupying the greater part of New Guinea; and that the failure of Professor Flower in his search after a Papuan type of skull arose from paucity of materials.

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Captain HAROLD DILLON, F.S.A., exhibited some flint implements from Canada and the United States of America.

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NOTES on SKELETON found at CISSBURY, *April, 1878.*

By GEORGE ROLLESTON, M.D., F.R.S., V.P.A.I., &c.

At page 431 of Vol. vii of the "Journal of the Anthropological Institute," May, 1878, will be found a short account by Mr. J. Park Harrison of the discovery of a second skeleton in the Cissbury Flint-works. This discovery was made at the end of March of that year, and having myself been engaged in the investigations carried on at Cissbury in 1875 (See "Journal Anthropological Institute," Vol. v, Jan., 1876, General Lane Fox, "Excavations in Cissbury Camp," pp. 357 to 390, and Vol. vi, 1876, pp. 20 to 36), I was sufficiently interested in Mr. Harrison's discovery to visit the scene of his operations on April 5, 1878.

On arriving I found that the skeleton had been carefully removed and committed to the guardianship of Dr. C. Kelly, the Officer of Health for the District, and now Professor of Medical Jurisprudence at King's College. To him, as to Mr. Harrison, my best thanks are due, for the information



which they most kindly supplied me with as to the details of the "find," and to Dr. Kelly's professional knowledge and supervision the almost perfect recovery of the bones is to be ascribed.

The view which, partly from the data furnished to me by these gentlemen, partly from my own observations on the spot, I have come to entertain as to the history of this interment may be briefly stated thus:—One of the "cave-pits" or shafts of the Cissbury flint mines\* having been disused by the flint workers for some time, had got filled up to about one-half of its depth, just as several of these pits have got filled up since *our* opening of them, by the scaling off and tumbling down of the more loosely compacted strata of the chalk forming its wall on to such rubble as its excavators had left on its bottom to save trouble. When this process had been arrested, owing to the less firmly compacted and coherent parts of the walls having been all removed under the influence of frost and rain, sufficiently long to allow of the formation of a layer half mortar half red mud at the bottom of the downward pointing conical depression which the desquamation of these *débris* had formed, we may, with the aid of the annexed heliotype from a photograph taken by Messrs. Russell, of Worthing, under the superintendence of Mr. Harrison and Dr. Kelly, reproduce in imagination the flint workers in the act of depositing on the smooth surface thus formed the dead body which the skeleton represents. The corpse was laid upon its right side, with its face to the East, with its knees within less than half a foot from its chin, with its lower legs bent back upon the upper, and with its forearms similarly at right angles to the long axis of its trunk; in one word, that is, in the "contracted" position. In front of its knees a large flint hatchet of oval contour† was placed, and the body was then surrounded by blocks of chalk and some large unworked flints ranged in greatest prominence round the back aspect of the trunk, head, and limbs, but forming also what is in the heliotype, a less conspicuously marked fence in front of the dead body. Some eight shells of

\* For a ground plan showing the particular shaft in its relation to the other shafts in its immediate neighbourhood, see Mr. Park Harrison's paper in "Journ. Anthropol. Inst.," Vol. vi, Pl. X, p. 413, May, 1878, where it is numbered Shaft vi.

For a figure of one of these shafts as they appear when cleared out of the rubble which till recently filled them up, and as it may be supposed to have appeared, if we add by imagination a quantity of rubble to the bottom of it, when the flint workers had finished it, see Mr. Park Harrison's paper, *Ibid.*, vi, Pl. XXIV, p. 432, May, 1877.

† The implement is shown in the annexed heliotype at c, and is the one spoken of by Mr. Park Harrison, *l.c.*, p. 431, as lying "near the head in front." There was only an interval of seven inches between the patellæ and the skull. The heliotype shows that some few worked flints were found, as was also reported to me by Dr. Kelly, around and on a level with the skeleton

*Helix nemoralis* and a fire-marked pebble appear to have been placed with the body, and after this had been done, the flint workers must have piled chalk rubble over their deceased comrade to a height of about a couple of feet, and having thrown or put in some half-dozen flint implements a little above and behind the spot occupied by the shoulders of the corpse and just outside the line occupied by the line of chalk blocks, they must, so far as the relics left to our inspection can show us, be supposed to have considered the interment completed.

Subsequently to the interment, the history of the filling up of the pit must have been very much the same as has been the history of the filling up of the pits excavated and observed during the last half-dozen years by ourselves. In a section of such of the contents or filling in of the pit as Mr. Harrison had left in the position which they had assumed in falling into it, two other red streaks, besides the one on which the skeleton had been placed, were visible. The first of these describes a somewhat conical contour with the apex of the cone reaching downwards to the level of the couple of feet of chalk which we suppose to have been heaped over the body as deposited, and with the base prolonged upwards to a place more than half-way from its apex to the surface of the ground. And we must suppose this red streak to have been formed simply by the deposition of the lowly soluble alum- and iron- silicates, the rain carrying away with it to lower levels the more soluble calcareous element of the chalk it fell upon. This red streak is, to the eye, just like the red layer found capping the natural surface of the Downs, and the two layers may therefore, with considerable probability, be considered to have been both formed in the same way.

The former, however, of the two layers contained traces of lime and magnesia, and may have been deposited in a comparatively short time, as the square surface of chalk made up firstly by the walls of the pit, and secondly by the heaps of excavated rubble which no doubt surrounded its mouth, must have been comparatively great. Within the boundary, constituted by this red streak, were contained alternately strata of fine chalk and of medium sized rubble, more or less interpenetrated and agglutinated by still finer water-deposited chalk.

These contents of this upper crateriform cavity we may reasonably suppose to have fallen into it under the influences of rain and frost acting upon the exposed chalk surfaces just mentioned. Above them a second red streak was to be seen at about the level of natural surface stretching more or less horizontally across the section. It appears to have been continuous at the walls with the other downward dipping red streak, very

much as the upper or anterior of the two conical sacs forming the surface net used for catching sea animals is continuous with the lower.

The more thorough washing which its longer exposure had given this uppermost streak of red mud had washed out of it all the traces of lime and magnesia which were found in the lower streak when examined chemically in Oxford.

Two more layers were visible above this red streak; the lower of them was made up of chalk blocks, forming a structure of from  $1\frac{1}{2}$  feet to 2 feet thickness. These blocks may obviously be supposed to have been some of the blocks which had been taken out of the pit whilst it was being excavated, and which after a long sojourn outside of it—long enough to allow of the formation of this second red streak—had finally, either by man's aid or that of some other motor force, been returned "into the hole of the pit whence they were digged." The upper of the two layers was made up of the black mould from vegetable *débris* which forms the bottom of so many of the cup-shaped depressions so characteristic of Cissbury.

The 14 or 15 feet which intervened between the red streak, about 5 feet long, upon which the body had been laid, and the natural chalk at the bottom of the pit were occupied with large blocks of chalk and smaller *débris*, which being of much the same character as the contents of the horizontal galleries in their neighbourhood may reasonably be supposed to have been left at the bottom of the pit to save the miners the trouble of carrying them up. They were much agglutinated by fine infiltrated chalk which had been deposited as the downward passing rain lost more and more of its carbonic acid.

It was in this deeper portion of the shaft that the following animal remains were found; a horn of goat (*Capra hircus*) which came from a level 23 feet from the surface; some horns of red deer (*Cervus elaphus*) which came from a level 20 feet from the surface; and some others from the galleries which branched off from the bottom of the pit some 7 feet lower. In one of those galleries an ox's scapula was found, April 8th.\*

Stone implements were found in considerable abundance in this portion as in the rest of the filling up of the shaft. Some of them were also of considerable beauty, as notably one found 6 feet from the bottom of the cave, April 6th. It is worthy of notice that four lumps of iron pyrites were found near the mouth of one of the galleries, and about 4 feet to 5 feet from the bottom of the pit; and near them were found from 300 to 400 flint chips in a heap. In this collection we have an indication as to the place where the flints were worked

\* For use of scapula of ox as a shovel, see Gen. Lane Fox, *l.c.*, p. 383.

up into weapons; and the marks of fire which have been supposed to have been found there may indicate that the presence of a fire was found desirable and secured by the workmen of those early days. I do not, however lay much weight upon this latter suggestion, chiefly because I think that the marks of fire would have been more obvious and less ambiguous\* than they are if the lighting of a fire had been a very common practice with the flint-miners.

Part of the lower jaw of an ox (*Bos longifrons*) has come into my hands from those of Mr. Park Harrison, with the note "16 feet," i.e., that of the level at which it lay in the pit, upon it; and a fragment of the femur of a tame pig (*Sus scrofa*, var. *domestica*), appears, though the labelling is a little indistinct, to have come from a higher level, viz.: that of 11 feet.

The further history of this shaft has been obtained from the postscript to Mr. Park Harrison's paper, "Journ. Anthrop. Instit.," vii, May 4th, 1878, p. 424 and pp. 431-433, and from additional information furnished to me by that gentleman and by Dr. Kelly. In following up the excavation of Shaft vi (shown on the plan, Pl. X, l.c.), the workmen came first at a little distance above the level of the skeleton, and, as was afterwards made out, over its left shoulder, upon six flint implements of about 4 or 5 inches long, and subsequently upon the cist round the skeleton, and then upon the skeleton itself. This skeleton is that of a man between twenty-five and thirty, who had suffered from hemiplegia when a child, but had sufficiently recovered to take an efficient share as a flint-miner in the labours of the surroundings in which his remains were found. His had been a formal, that of the female from Cissbury, already described by me ("Journ. Anthrop. Inst.," vi, 1876), an accidental interment; but the bones of the two skeletons and the relics found in company with them, show that their owners lived probably about the same time, were themselves of about the same age, though not of the same sex, and followed the same avocations.

I spoke (l.c. p. 32) of the skeleton previously found in one of the Cissbury flint-mine-shafts as having belonged to a "woman of about twenty-five years of age, of low stature, 4 feet 9 inches," and very much the same words might be used for describing the male skeleton now before me. Some little doubt might have arisen as to the question of the sex of this skeleton in the mind of anybody who might have chanced to put his hand upon the

\* Some of the black deposits which in other shafts had been supposed to have been due to fire, turned out, when examined microscopically, to be of a vegetable nature, and to be, possibly enough, identical with the *Protococcus lugubris* of Prof. Leidy, of Philadelphia.

long bones of the left arm on first seeing the skeleton. For these bones are disproportionately short as compared with ordinary male humeri, radii, and ulnæ, as their measurements will show; and it is only when they are compared with the corresponding bones of the other side of the body, and found to be much shorter than those of ordinary male bones, that we see that this shortness has a pathological, not a sexual significance, and is to be explained as having been caused by infantile paralysis which was partially recovered from. There is, however—when we examine the other bones of the skeleton, happily through Dr. Kelly's help, nearly all available for this purpose—no doubt as to the sex of the owner of this skeleton. As regards the limb bones even of the left arm, their markings for the insertions of muscles are much better defined, and their absolute dimensions are larger than those of the skeleton already described, and the same applies, *mutatis mutandis*, to all the other bones. The orbital ridges, the mastoid processes, the parieto-occipital and the frontal slopes in the cranium, the lower jaw and the pelvis, all alike possess the characters which are held to indicate the male sex.

I spoke of the age of the Cissbury female as having been "about twenty-five years," and I think, as this phrase may be taken to cover the quinquennial period from twenty-five to thirty, it may be considered to have been scientifically as well as otherwise justifiable. It is difficult to pronounce definitely as to whether the male skeleton now before us belonged or did not belong to an older individual than the female already described. In both, the epiphyses of the movable vertebræ have coalesced with the centra, those of the ossa innominata and those of the ribs and clavicles with the rest of those bones, whilst in neither have the first and second sacral vertebræ coalesced, which they usually do about the thirtieth year. On the other hand, the lines of junction of these epiphyses are a little more evident in the male than the female skeleton, and the teeth are not quite so much worn down, so that the male may be supposed to have belonged to a somewhat younger individual. In the male skeleton, again, the manubrium sterni is not ankylosed to the body; but this ankylosis, as visible in the female skeleton, must be considered an abnormality, explicable, possibly, by some peculiarity of diet, as it does not usually supervene till advanced life.

That the owners of the two skeletons under comparison were really workers in the flint mines in which they were found, is rendered probable by the markings of their long bones, of which mention has already been made in the description of the female skeleton (*l.c.* p. 35). The insertion of the deltoid, a muscle greatly employed in climbing, is very prominent in both humeri



of the male skeleton, but especially in the right; the insertions of the greater pectoral and of the latissimus dorsi, which take such a large share in pulling the body after the upwardly extended and grasping arms takes, as in the gorilla, the shape of long, roughly undulated, depressions, the anterior border of the bones, from the upper end of the insertion of the pectoral down to that of the deltoid, describes a curve convex forward to an extent which I have not noted in other human humeri, but which is very similar to that described by the anterior border of the platycnemic tibiæ. The musculo-spiral grooves are poorly marked; but the flat lower part of the posterior surface shows much more signs of the implantation of muscular fibres than is usual even in much more powerful humeri. All the four ulnæ of the two skeletons now before us resemble each other, in having the lesser sigmoid notch for the cylindrical head of the radius shallow and poorly defined, whilst the lower edge of the bone describes a much more marked carinated curve, extending over a distance of  $2\frac{1}{2}$  inches by  $3\frac{1}{2}$  inches, from the level of that notch forward, than is usual in human ulnæ. These peculiarities are, according to M. Broca, noticeable in certain anthropoid apes (see his "*Mémoires*," tom. ii, p. 181); but like the somewhat similar tibial platycnemy, they are more pronounced in the human than the simian bones.

Setting aside the sexual disparity, which is so often observable in an exaggerated degree in the limb bones of uncivilised races (see "*British Barrows*," p. 659, *ibique citata*), the lower limb bones are, like the upper, curiously similar in the two skeletons, and may have their similarity similarly explained by reference to the climbing which must have formed a considerable part of the labour of the flint workers. The femora in both have the same third-trochanter-like facets for the insertion of the gluteus maximus; in both the right femur has its linea aspera much more prominent than has the left, though the bones of the two opposite sides are in both of the same length; in both alike is the bone flattened or flanged out in the region of the insertion of the gluteus maximus. In both alike the tibiæ are platycnemic; though by the much greater development in the male tibiæ of the oblique "soleal" or "popliteal" line, and its prolongation on to the internal aspect of the bone which thus gives insertion or origin to more or less of three muscles, the soleus, the popliteus, and the flexor communis digitorum which do not encroach upon it in normal tibiæ, this platycnemy is made much more striking. The platycnemy, it may be remarked, even of the gorilla, *Trogodylis gorilla*, never proceeds so far as this; though the tibialis posticus takes origin from the outer, the flexor takes origin from the posterior, not from the internal aspect of the tibia. As

regards the pathological peculiarities of the male skeleton, it is observable from the annexed measurements, that the femora have not suffered at all from the right hemiplegia, which we may suppose to have been the cause of the diminution of size of the following left side bones; the left tibia and fibula being  $\frac{3}{16}$ -inch less in length, measured from astragalar articulating surface in contact with fibula than the right; and the left humerus  $\frac{5}{16}$ -inch, the left radius  $\frac{8}{16}$ -inch shorter than the right. With the exception of the shortening, the left limbs do not appear to be inferior in development to the right, in any degree exceeding that which is ordinarily observable in individuals who are, as savage races usually, and civilized very generally, right-handed. The difference which exists between the extent to which this shortening has affected the lower and upper limbs respectively, is an instructive commentary on the following generalisations which Sir Thomas Watson has based upon his experience and studies ("Principles of Medicine," 5th edition, 1871, p. 469): "Supposing the patient to recover wholly or partially from the paralysis, it is the leg, in nine cases out of ten, aye, and in a much larger proportion than that, which recovers first and fastest; sooner and quicker than the *arm*, I mean. And another fact, quite analogous with this, is that when one of the extremities alone is affected with paralysis it is, in nineteen cases out of twenty, the arm that is so affected. In general hemiplegia from cerebral lesion, the palsy of the leg is commonly less complete, and is sooner recovered from than the palsy of the arm."

An abnormal depression,  $\frac{4}{16}$ -inch long, of the shape of a segment of the lateral sinus in the cranium, exists immediately internally to the rough oblique line corresponding with part of the upper and outer limit of the origin of the solens for the posterior surface of the fibula of the left side. This may possibly have been produced by the malnutrition caused by the temporary hemiplegia. But no other lesions of this kind, if such it be, have presented themselves to me elsewhere in this skeleton.

The cranium of the male skeleton contrasts with the female, already described, *i.e.*, in the following particulars:—

When placed on a horizontal plane, and viewed in the *norma lateralis*, without the lower jaw, the skull rests on the occipital condyles and the first molar and the teeth anterior to it, whilst the female skull, when similarly placed, rests on the conopsea cerebelli and the first and second molars, showing thus at once a greater cranial curvature, which is a sign of elevation, and a greater convexity downwards of the upper alveolar line, which is rather a sign of the reverse. The male skull is more orthognathous than the female, whilst the slope of the forehead is

more oblique, as is usual in male skulls. The same applies to the obliquity in the parieto-occipital region. The frontal and parietal regions are, as the measurements of their absolute widths show, less well filled out and globose than those of the female skeleton;\* the muscular impressions show the large development to be expected in a male subject. The ear is seen, as the low antero-posterior index (·48) indicates, to be placed far forward in the skull. The origin of the temporal muscle from the frontal, and of the masseter from the malar bone are marked by rugged lines; there is a large foramen emissarium in each temporal bone posteriorly to the digastric fossa, in compensation, as it were, for the existence of but a single small one in the place of the normally present pair in the parietal region. Viewed from behind, the parietal tubera are so faintly marked as to mask somewhat the pentagonal contour which the falling away of the parietals from the middle line of the skull on either side, together with the comparative flatness of the temporal regions, would otherwise give. Viewed in the norma verticalis, the skull is seen to be phenozygous; to have the denticulations of the sagittal suture somewhat coarse where present, and to have the fused halves of the frontals sloping away from the middle line. When the skull is viewed from the front, the lowness of the orbital, and the height of the nasal indices are very obvious; the end interzygomatic diameter forms the base of a triangle with its apex at the middle line of the frontal; but inferiorly, the flanging out of the lower jaw at its angles diminishes the relative superiority of this transverse measurement. The malar portion of the orbit has its edges everted. The supra-orbital portion is strongly developed, and bridges over the supra-orbital foramen. The supra-ciliary ridges are distinct from the supra-orbital, and meet across the middle line. The frontal sinuses are far from being co-extensive with them.

The lower jaw of this skull contrasts in very many important particulars with the lower jaw of the other skull from Cissbury (already described in this Journal, *l.c.*, p. 34). The body of the bone, instead of having its symphysis separated by a wide interval from a horizontal plane upon which itself rests, has an all but perfectly horizontal boundary line inferiorly, upon which would rest in its entire length but for a small downward growth in the region of the symphysis, and a slight rounding off of its angle, the general contour of which is quadrangular; when thus resting on a horizontal plane, it has its coronoid process projecting considerably above the level of the articular surface of the condyle, and when placed in its normal relation with the skull it has this

\* The minimum frontal width of the female Cissbury is given (*l.c.*, p. 36) erroneously as 3·1; it should be 3·9; it is in this male skull 3·7.

same process prolonged a considerable way into the zygomatic fossa; a line drawn along the lower margin of the body of the bone makes an angle of but  $103^{\circ}$  with one drawn along the posterior aspect of its ascending ramus as opposed to the angle of  $133^{\circ}$  made by the same lines in the other lower jaw from Cissbury; and the teeth are less worn and of smaller size, and the body of the jaw less tumid, though the age was about the same and the sex male as opposed to female. If the regions of the symphysis of the lower jaws differ very much when looked at from the front, they differ even more when looked at from behind. The posterior aspect of the symphysis of the lower jaw can be naturally divided into two segments, one anterior, the other posterior to the tubercles for the geniohyoglossi and the vascular foramen just in front of them. If we place the point of one arm of a pair of compasses in this pretty constant foramen, and take with the other, first, the distance to the alveolar, and secondly, the distance to the mental edge of the symphysis, we shall very rarely fail in the lower races of mankind to find the former of these distances much exceed the latter; and it is certainly only in the lower jaws of the higher races that we find the opposite proportion to prevail. So that if it were not wearisome to add to the list of indices, an antero-posterior index might be established for comparing the relative proportions of the two segments of the usually curved line described by the posterior surface of the symphysis.

The length from the foramen specified to the alveolar edge of the symphysis is in the female jaw 1.1 inch as against .85 inch in the male, whilst the distance from the same foramen to the mental border of the symphysis is in the female jaw .6 inch as against .7 inch in the male.

The following general conclusions appear to be deducible from the foregoing descriptions and comparison of the two Cissbury skeletons:—

Firstly, that from the osteological peculiarities either of the cranium or of the lower jaw, or of the trunk and limbs, or of the skeleton as a whole, arguments of considerable cogency may be drawn for or against the "priscan" date of a human skeleton, independently of the arguments to be drawn from its archaeological surroundings.

Secondly, that in skeletons proved to be priscan by both the above lines of argumentation, points of difference will still be found to exist, independent on the one hand of points of sexual difference, and in spite, on the other, of any tendencies to uniformity, which the supposed uniformity of priscan life may be thought likely to produce.

# MEASUREMENTS OF MALE SKELETON FROM CISSBURY, APRIL, 1878.

## MEASUREMENTS OF SKULL, FACE, AND LOWER JAW.

	inches.
Extreme length .. ..	7.3
Fronto-inial length .. ..	7.25
Extreme breadth .. ..	5.2
Upright height .. ..	5.7
Absolute height .. ..	5.6
Circumference .. ..	20.5
Basicranial axis approximately,	4.0
Cubic capacity not taken	
Minimum frontal width .. ..	3.7
Maximum frontal width .. ..	4.5
" occipital width .. ..	4.5
Frontal arc .. ..	5°
Parietal arc .. ..	5.1
Occipital arc .. ..	4.6
Basiosubnasal line approximately	3.7
Basio-alveolar line approximately	3.7
Length of face .. ..	2.3
Breadth of face .. ..	4.9
Height of orbit .. ..	1.3
Width of orbit .. ..	1.6
Length of nose .. ..	1.85
Width of nose .. ..	1.0
Depth of lower jaw at symphysis	1.3
Width of ramus .. ..	1.5
Interangular width .. ..	4°
Mandibular angle .. ..	103°

## INDICES.

Length-Breadth Cranial .. ..	.71
Length-Height Cranial .. ..	.76
* Antero-posterior .. ..	.48

## ANGLES.

Basilar .. ..	30°
Facial at alveolar border .. ..	74°
Facial at nasal spine .. ..	76°

## MEASUREMENTS OF TRUNK AND LIMB- BONES.

	inches.
Length of right femur .. ..	15.7
" left .. ..	15.7
" right tibia .. ..	12.2
" left .. ..	11.9
" right fibula .. ..	12.4
" left .. ..	12.1
" right humerus .. ..	12.8
" left .. ..	11.5
" right radius .. ..	8.9
" left .. ..	8.1
Right clavicle .. ..	5.1
Left .. ..	5.2
Distance from upper limit of glenoid fossa to posterior in- ferior angle of right scapula†	6.6
Distance between the widest apart points of ilia .. ..	10.0
Distance between front of sym- physis pubis and the sacral spines .. ..	6.3
Angle at symphysis .. ..	35°
Antero posterior diameter of true pelvis .. ..	4.8
Transverse diameter of true pelvis	4.6
Oblique .. ..	4.7

*Stature* as calculated from lengths of femur 4' 9". The entire skeleton as laid out with spacing between vertebrae occupied a length of 4' 10"·5, to which an inch should be added for scalp and plantar soft parts, making in all a stature of 4' 11"·5.

## *Description of Heliotype.*

The skeleton is seen to be lying on its right side; in the contracted position the left side of the skull has been much damaged, as seen at *a*.

\* For this Index, see "British Barrows" 1877, pp. 563, 667.

† This measurement only admits of being approximatively obtained in the female skeleton with which we have been comparing it, it is however, about an inch less, a significant fact not without parallel in prehistoric skeletons.



Large chalk blocks *b* are arranged round the skeleton, they are seen very plainly round the back of the skeleton; the rubble, &c., which filled the pit up for an extent of 16 feet above the skeleton has not been so largely removed from the front of the skeleton, hence the chalk blocks there are not seen so plainly as they are behind it.

A beautiful flint implement *c* is seen in front of the bent knees.

*d*, the pelvis.

*e*, the left foot.

#### DISCUSSION.

Professor FLOWER, F.R.S., said that having only had the bones in his hands for a few minutes he was unable to add anything of importance to Professor Rolleston's able and exhaustive description of them. He could only corroborate the statement as to sex, as both pelvis and skull presented in a marked manner the masculine characters, and the age was probably not far below thirty. The face was remarkable for the lowness of the orbital index, and in this character and the form of the malar bones it showed no mongoloid affinities.

LORD ROSEHILL, speaking on the great interest attached to the skeleton just described, thought it right to mention that he had in his possession a skull, wanting only the lower jaw, which came to him with the collection of the late Mr. J. P. Tindale, marked "Cissbury Camp." Lord Rosehill had worked with that gentleman at the shaft now called "Tindale's Pit," but unfortunately was away during the latter part of the excavation, shortly after which Mr. Tindale died. Consequently he was not certain whether the skull in question came from that Pit, or from some other part of the Camp or neighbourhood, possibly Professor Rolleston might know more of the matter; and the skull would be sent to him for his examination.

MR. R. B. MARTIN wished to ask Professor Rolleston and Mr. Park Harrison as to the position in which the skeleton was found: whether it appeared to have been carefully buried or to have been thrown in and hastily covered up? The position of the figure in the drawing differed considerably from that in the photograph.

MR. PARK HARRISON thought it was quite possible that the cripple that had been so scientifically restored by Dr. Rolleston may have met with an accident whilst climbing up or descending the shaft, and that he was interred there owing to the difficulty of removing his remains. Dr. Kelly, hearing on the day after that on which the discovery was made, late in the afternoon, that there was a skeleton, or a portion of one, underneath the chalk *débris*, accompanied Mr. Harrison to the spot; and they spent about two hours in removing the chalk, piece by piece, to prevent the position of the bones as they lay in the shaft from being disturbed.

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PAPUAN MUMMY FROM DARNLEY ISLAND.

Subsequently, after the skeleton had been photographed, more of the chalk was removed, and then the blocks in front were rendered more conspicuous.

As regards the composition of the red seams, Dr. Kelly analysed some of the material from above the skeleton, and also part of the browner earth from the level bed on which it lay. He obtained alumina and much oxide of iron from both samples. There was least chalk in the clay from *beneath* the skeleton.

Some pieces of stags' horn found on the north side at the same level as the flint chips on the opposite side of the shaft were undoubtedly charred.

The photograph has been mounted upside down. The face should look to the right, as in the drawing.

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*Illustrations of the Mode of preserving the DEAD in DARNLEY ISLAND and in SOUTH AUSTRALIA.* By WILLIAM HENRY FLOWER, LL.D., F.R.S., V.P.A.I., &c.

THE Museum of the Royal College of Surgeons has lately acquired a dried body of a man, fastened to a kind of hurdle or framework of wood, brought in 1872 from Darnley Island or Erroob in Torres Strait, by Mr. Charles Lemaistre, Captain of the French barque "Victorine." According to the statement of Mr. Lemaistre, "the mummy was found in its grave, which consisted of a high straw and bamboo hut of a round form; it was not lying down, but standing up on the stretcher. Round it and on the ground were some broken shells, bones of fishes, and a few human skulls."

The framework, or stretcher, is composed of two nearly parallel pieces of cylindrical branches of a tree with the bark on, each 6 feet in length, and about an inch and a-half in diameter, fixed at a distance of from 16 to 18 inches apart, by ten cross pieces of similar wood of smaller calibre, bound to the longitudinal lateral pieces by cord of native manufacture, formed of plaited grass or other vegetable fibre. The disposition of these pieces in relation to the longitudinal pieces and to the body is seen in the accompanying photograph (Pl. XI). At each end there are two pieces, one in front of, and one behind the longitudinal bars, as if for greater security. The rest are all tied on to the front side or that to which the body is attached. All these pieces of wood are smoothly cut at the ends, as if with a saw.

The body has evidently been fastened on to this frame, and placed in the upright position while it was fresh, and before drying. The principal points of suspension have been the

cords which pass under the axillæ and are tied to the upper cross bars. By these the shoulders are drawn up, the head being sunk between them, and inclined slightly to the right side. The arms are placed in a straight position by the sides of the body, with the dorsal surface of the hands forwards, and secured at the wrists to one of the cross bars. The legs are also secured just below the knees to another cross bar, and the feet rest upon, and are tied to, the lowest of the transverse sticks. The body is not fastened anywhere except at the four points mentioned, the shoulders, wrists, knees, and feet.

The body measured about 5 feet 2 inches from vertex to heel; the head being sunk as mentioned above, between the shoulders.\* It was perfectly desiccated, and in some parts, as the thighs and feet, the dried skin and soft tissues had perished in consequence of the attacks of insects or from injuries it had received in its various journeyings before it came into possession of the College. The bones of the feet were nearly bare, and unfortunately some of the phalanges of the toes were lost. Some of the front teeth had also dropped out, otherwise the skeleton is perfect.

Suspended in front of the pubic region, was a piece of the shell of the great Indian Volute (*Melo indica*) rudely fashioned into the shape of a heraldic shield,  $7\frac{1}{4}$  inches in length, and 4 inches in width at the broadest part. The upper (broad) end of this is ornamented by four transverse incised lines, about a quarter of an inch apart, between each of which is a row of circular pits, made apparently with the point of some drilling instrument. There are about seventeen of these in each row, but they are not very regularly placed, either as to distance or linear arrangement. Besides these, there are nine circular holes of larger size, bored probably by the same instrument, quite through the thickness of the shell. This is the shield which is worn by the Erroob warriors in battle in the situation of the fig-leaf of the sculptor.

The skin was everywhere hard and tough, as if it had been subjected to some tanning process, and was covered with a reddish pigment, especially conspicuous on the face and abdomen. Chemical analysis showed that iron was the basis of the colouring matter. There was not a vestige of hair upon any part of the surface, all having probably fallen out in the natural process of decay. The hair appears to have been on the scalp at the time of preparation, as the red colour extends up the face only as far as the skin would be bare, and the upper part of the head is black, forming a marked contrast to the rest of the skin. The same condition is to be observed in other

\* The height of the articulated skeleton is 5 feet 4 inches.



similarly prepared mummied heads from the same locality, and may be attributed to the fact that the hairy covering, though it may subsequently fall off, protects the scalp from the action of the red preparation with which the skin is besmeared.

The sockets of the eyes were filled with a dark brown substance, apparently a vegetable gum like gutta-percha, as it softens with heat and burns with a smoky flame. In this was embedded a narrow oval piece of mother-of-pearl, pointed at each end, in the centre of the anterior surface of which is fixed a round mass of the same resinous substance, representing the pupil of the eye. On close examination, it was found that the eyeballs and other contents of the orbits had not been removed, but that the artificial representatives of the eyes had been placed *over* the sunken lids. Both nostrils had been distended by some substance placed within them, but now removed. The lips had not been fastened together, but had widely retracted, thus unfortunately allowing of the loss of some of the incisor teeth spoken of before. The lower jaw had however been secured from falling down by a strong plaited cord, like that used in constructing the supporting frame, which had been passed beneath the lips and skin close to the bone, through the right nasal cavity, passing out behind at the posterior nares, and round the ramus of the mandible, and secured by a knot in front. This was probably done after the tongue, hyoid, and larynx had all been removed through the mouth, as no remains of these parts were found. The brain cannot have been removed, for the walls of the orbits and nasal chambers were intact, and it would not seem possible to extract it through the foramen magnum without greater external damage than the body had sustained.

In the right flank was a longitudinal incision,  $3\frac{1}{4}$  inches in length, extending between the last rib and the crest of the ileum.\* This had been very neatly closed by what is called in surgery the interrupted suture, seven separate ligatures being placed upon it. Through this, it was evident, the whole of the pelvic, abdominal, and thoracic viscera had been removed, as no vestige of them remained in the body, and their place was occupied by four pieces of very soft wood, roughly split from the interior of some endogenous tree, each being from 12 to 15 inches long. Except the wound in the flank, there was no other opening or injury to the skin.

Having taken this description and a photograph of the mummied body, I have had the skeleton, which is that of a

\* The ancient Egyptians, as is well known, removed the viscera from the bodies about to be preserved as mummies, through an incision in the same situation, but on the left side.

powerful muscular man in the prime of life, prepared for the osteological series of the Museum of the College of Surgeons, and the framework, cord, and shield will be deposited in the Christy collection of the British Museum.

Heads of bodies prepared in a similar manner from Darnley Island are to be seen both in the Museum of the College and in the British Museum, but I am not aware that any entire body has been previously brought to Europe; though it is probable that the custom of preserving the dead in this fashion is common in the Island.

Jukes relates\* that on one of his visits, "under some trees outside the fencing, were sitting two old women, one of whom was Seewai's wife, the other Keouck's. The latter had on her lap the body of a child, a few months old, and which seemed to have been dead some time. It was stretched out on a framework of sticks, and smeared over with a thick red pigment, which dressing she was now renewing. It was much shrunk, with the skin hanging in loose folds, but had no other appearance of decomposition. As soon as she had smeared it all over, she hung it up behind her in the shade of a bush, talking and laughing quite unconcernedly. Keouck said it was his 'piccaninny.' The two women had their heads closely shaven and smeared, as well as their faces, with a white pigment, but had no other sign of mourning about them."

Macgillivray† says: "The natives always objected to show to me the inside of their huts, many of which we knew were used as dead-houses. . . . Several human skulls were brought down for sale, also a little shrivelled mummy of a child. Some of the former had the skin quite perfect, the nose artificially restored in clay, mixed with a resinous substance, and the orbits occupied by a diamond-shaped piece of mother-of-pearl, with a black central mark."

On making inquiries regarding this custom from Signor D'Alberty, who has been in Darnley Island more recently than either of the travellers quoted above, he told me that a woman there asked him if he would like to see her husband. On his assenting, she conducted him into her house, where, to his surprise, he found the man, dried and painted, and placed in the upright position exactly like the specimen described above.

Before leaving the subject of Darnley Island mummies, it may be worth mentioning that in the British Museum is a very

\* "Narrative of the Surveying Voyage of H.M.S. 'Fly,' commanded by Captain F. P. Blackwood, R.N., in Torres Strait, &c., during the years 1842-46" (1847), p. 246.

† "Narrative of the Voyage of H.M.S. 'Rattlesnake,' commanded by the late Captain Owen Stanley, R.N., during the years 1846-50" (1852), p. 48.

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AUSTRALIAN MUMMY FROM ADELAIDE.

remarkable microcephalic head from that locality, which has been preserved in the usual manner, though the skin is now nearly all stripped off it, so that its characters can be well seen. It is entered in the catalogue as the head of an "idiot," though whether this is an inference from its extremely small size, or whether a statement of the known character of the individual while living, I cannot say. It belonged to a young person apparently of the male sex, and from sixteen to eighteen years of age, as the basilar suture is not united, but all the permanent teeth are in place, except the third molars, which were on the point of eruption. The circumference of the cranium is 422 millim., the length 152, the breadth 110, the height 116, and the capacity only 830 cubic centimetres. The average capacity of seven normal Torres Strait Islanders in the College of Surgeons' Museum is 1320, the smallest being 1225.

The second illustration of modes of preserving the dead among barbarous people, which I have to bring before the Institute this evening, is a dried mummy of an adult male Australian from the neighbourhood of Adelaide, which was presented to the Museum of the Royal College of Surgeons in 1845, by Sir George Grey, at that time Governor of South Australia. It is described on a label attached to it, as "one of a tribe in which the practice exists of drying the corpse and preserving it above ground." As the skeleton will form a more instructive specimen when the dried and decaying integuments are removed, I have had it cleaned, but before doing so a photograph was taken of the body (Pl. XII), and such observations upon the mode of preservation and preparation as its condition permitted of were made.

The attitude was very peculiar, the limbs being trussed up closely to the sides, in a position impossible for the living body to assume, and the head was thrown back. The thighs were forcibly bent upwards by the sides of the body, so that the knees were placed behind the shoulders; the legs were tightly flexed on the thighs, the heels being close to the hip-joints; the fore-arms were crossed in front of the lower part of the abdomen, each hand resting on the foot of the opposite side. A broad bandage of netting of native manufacture, was fastened horizontally round the middle of the body, to retain the limbs in this position.

The surface of the skin was of a dark reddish colour, having apparently been covered with red ochre, as in the case of the Darnley Island mummy. Though the hair of the scalp had nearly all disappeared, some still remained on parts of the arms, limbs, and trunk, specimens of which have been preserved for microscopic examination.

The mouth was stuffed with emu's feathers, and the lips were



tightly sewn up by continuous suture, the end of the string used hanging down from the left corner, and having some emu's feathers twisted into it, forming a sort of tassel, depending on to the chest, as seen in the photograph; the nostrils were also sewn up. The tongue, larynx, &c. had not been interfered with, and the hyoid bone was *in situ*. The thoracic and abdominal viscera had apparently not been removed or disturbed, as their dried remains were found in their respective cavities; but decay and insects had caused so much destruction to these parts that their condition could not be satisfactorily ascertained. No artificial opening could be seen in the abdominal walls, but the anus had been sewn up, and as if with the greatest care to close all the natural apertures of the body, the prepuce, drawn down beyond the glans, had a cord tied tightly round it.\*

It will thus be seen that even among so rude a people as the aboriginal Australians, some pains had been taken in carrying out what was considered the decent and orderly disposal of their dead, although the art displayed on the occasion was inferior to that exhibited by the more civilised Papuans of Darnley Island.

#### DISCUSSION.

Mr. HYDE CLARKE urged the importance of Professor Flower's demonstrations in reference to their bearing on the connection of the Australian populations with those of the main continents, and in the influence exerted in Australasia at a former time by a more highly cultivated race. This, to his mind, was the explanation of the relations of the higher culture, whether with regard to language, marriage and kindred, weapon names, or modes of culture, such as the mummies now described, the modes of incision and form of burial. He did not consider these institutions, as some great authorities did, indigenous in Australia or as necessary proofs of the community of a black race. He thought the consideration of the whole of the phenomena was adverse to such a conclusion. The Peruvian mummies, he believed, belonged to a later race than the black. The mummy in a contracted form, he would suggest, was the substitute for the burial of the owner in a contracted position under the hearth of his own house, and had the same relation to

\* Compare the description of funeral rites in R. Brough Smyth's "Aborigines of Victoria" (1878) where Mr. H. E. Meyer, speaking of the Encounter Bay tribe in South Australia, says: "The person who sews up the apertures of the corpse runs some risk if he does not provide himself with a good string; as if the string should break, it is attributed to the displeasure of the deceased, who is supposed to make known in this manner that he has been charmed by him; also if the small quill used as a needle should not be sufficiently sharp to penetrate the flesh easily, the slightest movement caused by pressing the blunt point into the flesh is supposed to be spontaneous motion of the corpse, and to indicate that the sewer is the guilty person" (Vol. i, p. 113).

ancestor worship. He appealed to Mr. Park Harrison for support as to the sacred character of the red colour, its symbolic applications for man and in the shape of the red hand, diffused in America and the Old World. He observed that according to his own investigations the weapon names of Australia were not peculiar, but belonged to the general class. He stated that the Myfoar and Motu languages of New Guinea belonged to the epoch of early culture, another point in reference to the precedence of a higher race, as did the grammatical and other phenomena of the Australian languages.

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JANUARY 21ST, 1879.

JOHN EVANS, Esq., D.C.L., F.R.S., *President, in the Chair.*

The minutes of the previous meeting were read and confirmed.

The following presents were announced and thanks were ordered to be returned to the respective donors for the same:—

FOR THE LIBRARY.

From the ASSOCIATION.—Report of the British Association, 1877, Plymouth.

From the EDITOR.—Materiaux pour l'Histoire de l'Homme, Nos. 6-10, 1878.

From the Editor.—Revue d'Hygiène et de Police Sanitaire, No. 1, 1879.

From Dr. PAUL BROCA.—Revue d'Anthropologie. Vol. II, No. 1, 1879.

From the SOCIETY.—Journal of the Asiatic Society of Bengal. Vol. XLVII, Part 1, Nos. 2 and 3; Part 2, No. 3. Proceedings ditto, Nos. 1, 8, and 10.

From the EDITOR.—Revue Scientifique, Nos. 28 and 29, 1879.

From the EDITOR.—Revue Internationale des Sciences. No. 1, January, 1879.

From the EDITOR.—"Nature" (to date).

Mr. E. W. Brabrook read a communication, by M. le Dr. Paul Topinard, Prof. à l'Ecole d'Anthropologie de Paris, Hon. M.A.I., "On Resemblances between a Galtcha and a Savoyard Skull." This will appear in a future number.

## ANNUAL GENERAL MEETING.

JANUARY 28TH, 1879.

JOHN EVANS, Esq., D.C.L., F.R.S., *President, in the Chair.*

The notice convening the meeting was read.

The minutes of the previous meeting were read and confirmed.

The Treasurer's Financial Statement for 1878, was read and adopted on the motion of Mr. F. W. BRABROOK, seconded by Mr. A. L. LEWIS.

Treasurer's Financial Statement.

397

RECEIPTS.

BALANCE, January 1st, 1878:	£	s.	d.	£	s.	d.
At Bankers .....	104	4	1			
In Clerk's hands .....	2	0	9	106	4	10
<b>SUBSCRIPTIONS:</b>						
Paid to Roberts and Co. ....	57	15	0			
" Collector .....	452	11	0			
" due 1877 .....	60	18	0			
" in advance .....	5	5	0	576	9	0
<b>SALE OF PUBLICATIONS:</b>						
Messrs. Friebner and Co.: .....						
Journals .....	57	2	9			
Messrs. Longman: .....						
Publications of Institute .....	2	1	10			
Office: .....						
Journals .....	2	14	3			
Other Publications .....	3	18	6	65	17	4

PAYMENTS.

RENT, one year to September .....	£	s.	d.	£	s.	d.
PRINTING:						
Journal, Balance of No. 20 .....			4	6	0	
" Nos. 21, 22 (1877), Nos. 23, 24 (1878) .....			232	15	0	
List of Members .....			10	3	0	
Miscellaneous .....			11	11	6	
LITHOGRAPHY:						258
Enslie, to December, 1877 .....			3	18	9	15
Maclure, Enslie, and Kell, 1878 .....			63	3	8	6
Sachs, wood engraving .....			6	6	0	
PHOTOGRAPHY:						73
Wright .....						8
SALARIES:						10
Clerk .....	100	1	0			4
Collector's Commission .....	29	3	4	129	4	4
POSTAGE:						
Journal .....	14	11	10			
Letters, Circulars, and Post Cards .....	15	4	11			
ADVERTISING:						29
Street, to December, 1877 .....	3	8	0			16
" September, 1878 .....	6	16	9	10	4	9
OFFICE:						
Stationery, to December, 1877 .....	2	7	11			
" September, 1878 .....	5	0	7			
Furniture .....	7	0	0			
Receipt and Bill Stamps .....	2	4	9			
Binding .....	3	1	3			
Insurance .....	18	0				
Book Parcels .....	2	16	7			
Subscription to Oriental Congress .....	0	10	0			
Miscellaneous .....	2	0	0			
HOUSE:						25
Ayres, gratuity for 1877 .....	15	0	0			19
" coals and lights .....	4	10	6			
" assistance, parcels, &c. ....	5	4	9			
BALANCES:						24
At Bankers' .....	57	1	5			15
In Clerk's hands .....	0	15	8	57	17	1
				<u>£748</u>	<u>11</u>	<u>2</u>

Audited and found Correct.

(Signed) C. H. E. CARMICHAEL.

Mr. MONCURE L. CONWAY and Mr. ROBERT B. HOLL were appointed scrutineers of the ballot, which was then declared by the President to be opened.

Mr. E. W. Brabrook then read the Reports of Council for 1878.

REPORT of COUNCIL of the ANTHROPOLOGICAL INSTITUTE of GREAT BRITAIN AND IRELAND for 1878.

THE Institute has held fifteen ordinary meetings, and one anniversary meeting during the year, at which the following communications were read:—

1. On a Collection of some 150 objects from the Andaman and Nicobar Islands, obtained by him through E. H. Man, Esq. By Major Gen. A. Lane Fox, F.R.S.
2. Notes on the Ethnology of the Motu. By the Rev. W. Y. Turner, M.D.
3. On a Discovery of Paleolithic Implements in the Valley of the Axe, Devon. By John Evans, Esq., D.C.L., F.R.S.
4. On Colouring Matter found in Human Hair. By H. C. Sorby, Esq., F.R.S.
5. On Bird-shaped Mounds in Putnam County, Georgia. By the Hon. C. C. Jones, Jun.
6. On Stone Implements from Natal. By John Sanderson, Esq.
7. On Primitive Culture of Babylonia. By W. St. Chad Boscawen, Esq.
8. On the Natural Language of the Deaf and Dumb. By Professor Graham Bell.
9. On the Original Range of the Papuan Race. By Francis A. Allen, Esq.
10. On Rock Paintings in New Zealand. By Dr. Jules Von Haast.
11. On Inductive Metrology. By W. M. Flinders Petrie, Esq.
12. On the Game of Patolli in Ancient Mexico, and its probably Asiatic Origin. By E. Burnet Tylor, Esq. D.C.L., F.R.S.
13. On Composite Portraits made by combining those of various persons into a single resultant figure. By Francis Galton, Esq., F.R.S.
14. On the Origin of the Classificatory System of Relationships used among Primitive People. By C. Staniland Wake, Esq.
15. On the Devil's Arrows, near Boroughbridge, in Yorkshire. By A. L. Lewis, Esq.
16. Description of a Male Skeleton found at Cissbury. By Prof. George Rolleston, M.D., F.R.S.
17. Excavations at Sigwell, in Cadbury, by a Committee of the British Association. By Prof. George Rolleston, M.D., F.R.S.
18. On Buddhism in the British Provinces of Little Tibet. By Colonel Paske.
19. On the Piojés of the Putamayo. By Alfred Simson, Esq.
20. Vocabulary of the Zaparo Language. By Alfred Simson, Esq.
21. On the Bulgarians. By Dr. John Beddoe, F.R.S.
22. Ethnological Hints afforded by the Stimulants of the Ancients and of Modern Savages. By Miss A. W. Buckland.
23. On Polygamous Marriages in South Africa. By J. Sanderson Esq.
24. On the Ethnology of the Islands of the Pacific. By the Rev. S. J. Whitmee.
25. On Paleolithic Implements from the Gravels of N.E. London. By Worthington G. Smith, Esq.
26. On a New Method of finding the Cranial Index. By G. M. Atkinson, Esq.



27. Report on Anthropological Proceedings at the Oriental Congress. By Robert Cust, Esq.
28. On some Characters tattooed on a Motu Woman. By J. Park Harrison, Esq., M.A.
29. On the Evils arising from the use of Historical National Names as Scientific Terms. By A. L. Lewis, Esq.
30. On some American Illustrations of the Evolution of New Varieties of Men. By Prof. Daniel Wilson, LL.D.
31. Finds in Midian. By Capt. R. F. Burton, F.R.G.S.
32. Notes on Skulls from Midian. By Prof. Richard Owen, C.B., F.R.S., and Dr. C. Carter Blake.
33. On Left-Handedness. By Dr. Muirhead.

Fourteen Ordinary Members have been elected during the year.

Dr. Paul Topinard has been elected an Hon. Member, and Dr. Ernest Lambert, Corresponding Member.

The Institute has lost through death Mr. G. V. Vernon, Mr. James Bonomi, Mr. E. T. Stevens, Sir F. M. Williams, Mr. A. Trevelyan, Mr. J. Tennant, and Mr. W. Blackmore, Ordinary Members, and Prof. Joseph Henry, and Sir J. Gardner Wilkinson, F.R.S., Honorary Members.

MR. BONOMI, the accomplished curator of the Soane Museum and distinguished Egyptologist, was known to the Institute as the inventor of an ingenious instrument for ascertaining the relations between height and length of arm, which he exhibited and described on the 20th May, 1872.\*

MR. E. T. STEVENS, of Salisbury, the son of a local magistrate and man of business, was attached from his earliest years to geological, antiquarian, and archæological pursuits, having been educated at the school of Mr. Hatcher, the historian of Salisbury. He took deep interest in the history and antiquities of that city, and in the primeval relics with which Wiltshire abounds, and was for many years secretary to the Wiltshire Archæological and Natural History Society. Geological discoveries, which were made some twenty years ago, invested flint implements with a new interest, and at length the attention of antiquaries was directed to the drift beds in the neighbourhood of Salisbury, where a number of flint implements were found by Mr. Stevens and others. Being greatly interested in this discovery, Mr. Stevens visited the Valley of the Somme, near Abbeville, in France, where M. Boucher de Perthes had found similar implements in the drift, and subsequently devoted much time and attention to the study, not only of the implements of Palæolithic age, but also of those of the Neolithic

\* "Journal Anthro. Institute," Vol. ii, p. 180.

period. Mr. Stevens was a thorough archaeologist, to which the many papers he contributed from time to time to various archaeological publications, and notably his well-known volume entitled "Flint Chips," bear ample testimony. In the year 1863, there fell upon Mr. Stevens the onerous work of arranging and classifying one of the finest collections in the world of stone implements and other objects of art of the aboriginal inhabitants of America, which was placed in Salisbury by Mr. W. Blackmore, his brother-in-law, whose loss we have also to deplore. When the Salisbury and South Wilts Museum was opened in 1864, a descriptive catalogue of the contents was published, the work being edited by Mr. E. T. Stevens, who not only minutely and elaborately described the stone, bronze, and early iron objects in the exhibition, but furnished the anastatic drawings of the rugged tools and weapons of flint, stone, and bronze, which illustrate the work. In 1870, at the request of Mr. Blackmore, Mr. Stevens published a work, entitled "Flint Chips: being a Guide to Pre-historic Archaeology as illustrated by the collection in the Blackmore Museum." On the appearance of this work it was noticed favourably by the leading scientific and literary publications of the day, and was considered to be a valuable contribution to the knowledge of pre-historic archaeology. The great industry which was displayed in its production, combined with immense research and considerable literary skill, placed its author at once in the front rank of English writers on the subject. His last printed work was entitled "Jottings on some of the Objects of Interest in the Stonehenge Excursion, on Thursday, August 24th, 1876," issued during the last visit to Salisbury of the Wiltshire Archaeological Society, and we understand that when Mr. Stevens was seized with illness he had another archaeological work in the press. He was for a short time a member of the Town Council, and of the Salisbury School Board.

He became a member of the Anthropological Institute in 1876, but did not enrich our proceedings with any communication. He was also F.S.A., F.R.G.S., Hon. Director of the Salisbury and South Wilts Museum, Hon. Curator and Trustee of the Blackmore Museum, Corresponding Member of the Academy of Natural Sciences of Philadelphia, Foreign Member of the Anthropological Institute of New York, &c.

In him archaeology has lost one of its most enthusiastic and enlightened workers. He died on Sunday, August 18th, 1878.

Mr. W. BLACKMORE, whose name has just been mentioned as the founder and the munificent donor to the town of Salisbury of the Blackmore Museum, which by his endowment will remain

a permanent monument of his enlightened zeal for anthropological science, was elected a Member of the Ethnological Society of London in 1866, and in the same year he became a Member of the Council. On 27th April, 1869, he communicated a valuable paper on the North American Indians; a sketch of some of the hostile tribes, together with a brief account of General Sherman's campaign of 1868 against the Sioux, Cheysune, Arapahoe, Kiowa, and Comanche Indians (*Journal N.S.*, i, 287). In the autumn of 1868 he had visited the Far West, and in addition to traversing the valley of the Platte, and thence across the Rocky Mountains to the Salt Lake City, he passed through the centre of the disturbed district; and his paper was written with the practical object of furnishing materials for the guidance of statesmen in dealing with aboriginal peoples. He estimated that in two centuries the Indian population had diminished from 2,000,000 to 300,000, and sought to trace some of the causes, principally disease and the encroachments of the whites. The paper contains a valuable body of information as to tribes which have even since then suffered further diminution. Upon the constitution of the Anthropological Institute, he joined the Council as one of the representatives of the Ethnological Society, and became a Vice-President in 1872. After a year's absence from the Council, he returned to it from 1874 to 1877, and though he did not make any further contribution to our proceedings, his assistance and advice at the Council, and his presence at our evening meetings, were highly valued by his colleagues.

The other members who died during the year, several of them distinguished in various branches of science, have not contributed to our proceedings.

*The former and present state of the Institute with regard to the number of Members are shown in the following Table.*

	Honorary.	Compounders.	Annual Subscribers.	Total.
January 1st, 1878 ..	51	94	333	478
Since elected .. ..	+1	..	+14	+15
Since deceased ..	-2	-2	-5	-9
Since retired .. ..	..	..	-22	-22
January 1st, 1879 ..	50	92	320	462

The following are the names of donors to the Library and Museum during the past year:—

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Mr. JOHN EVANS moved, and Mr. HYDE CLARKE seconded the adoption of the Report. Carried.

The President then delivered the following Address:—

On the occasion of another anniversary meeting of this Institute, it again becomes my duty to review our proceedings during the interval which has elapsed since our last anniversary, and to invite you to consider our present position and future prospects. I think that on the whole we may look back upon the last year with some degree of satisfaction, inasmuch as the communications which have been brought before us do not, either in number or in importance, fall short of those of any previous years. Our numerical strength

is however somewhat reduced. Our financial position also seems to have slightly deteriorated; in fact, rather more so than appears on our balance-sheet, as there would have been greater liabilities but for a delay in the publication of our Journal. Looking at the great importance of punctuality in all periodical publications, and at the advantages which will accrue from the memoirs communicated to us being promptly placed in the hands of our members and of the public, I trust that steps will be taken by the Directors and the Council by which the arrears of the Journal may be quickly made up, and all future delay in its appearance avoided. Turning now to the papers which have been read at our evening meetings, I have, following the example of my predecessors in this chair, and especially that of General Lane Fox, attempted to classify them under the various heads which he has suggested, and to give a short summary of the most important among them, together with a few casual observations upon some of the points suggested by them.

IN DESCRIPTIVE ETHNOLOGY.—We have had three papers:—

1. "Notes on the Piojés of the Putumayo," by Mr. Alfred Simson. This paper, written from actual observation, gives a good idea of the condition of some of the native tribes of Equatorial America, under the influence of what by courtesy is called Christianity. Though to some extent outwardly conforming to the religion which has been rather forced upon them than spontaneously adopted, they still retain many of the customs and beliefs of their more primitive condition. The plucking out of eyebrows and eyelashes, the perforation of the septum of the nose, the fasting of both father and mother after the birth of a child, the belief in the efficacy of a medicine against snake bites being due to its sojourn in an alligator's tooth, and the allowing the hands to be stung by ants in order to obtain proficiency in the use of the bow and arrow, all carry us back to the times before European influences were felt, and offer

points for comparison with the customs of other races. One curious feature in the Piojés is their liability to a catarrh which often proves fatal, and is said to be readily contracted by mere contact with white men. The author has added to the value of his paper by appending a vocabulary of the Zaparo language.

2. "On the Ethnology of the Islands of the Pacific," by the Rev. J. S. Whitmee. From long residence in these islands, the author has been enabled to arrive at some definite conclusions as to the ethnology of the inhabitants. He regards the Melanesians or the black race, which not improbably has affinities with other negritos found in the southern hemisphere, as the aboriginal people. Next comes the brown Malayo-Polynesian race which probably came in from the West, and lastly, the Micronesians, who are however but rarely found of pure blood. In a subsequent paper by the same author, suggestions are made for a new nomenclature of these different races.

3. "Ethnological Notes on the Koitapu, Motu and neighbouring tribes of New Guinea," by the Rev. W. G. Lawes. A three years' residence at Port Moresby has enabled the author to gather many details as to this district of New Guinea, in which within 300 miles of the coast no less than 25 different dialects and languages are spoken. The Motu and Koitapu are found living at different ends of the same village, but still preserving their distinctive character. The Koiari who are allied to the latter, though physically inferior, occupy the mountainous districts inland. What will be the result of European intercourse with this varied population will form an interesting study for future anthropologists.

#### ARCHAEOLOGY.—*Nine papers.*

1. "Bird-Shaped Mounds in Putnam County, Georgia." Mounds of this character have been observed in great numbers in some parts of the United States, as for instance in Wisconsin, representing a number of different objects both animate and inanimate. They are, however, mainly confined to the northern



part of the States, and the interest of this paper consists in the discovery of similar mounds far away to the south-east in Georgia, thus widely extending the area over which these remarkable structures occur. How far they are sepulchral in character remains to be ascertained, though circular tumuli, sometimes of considerable size, have been observed in the same district, and have proved to contain human remains.

2. "Note in connection with Stone Implements from Natal," by Mr. J. Sanderson. Although the stone weights for digging-sticks, stone mullers, and even stone hammers for working in iron are still in use among the Zulus, there have as yet but few traces been discovered in Natal of a Stone-age properly so called. The specimens exhibited were for the most part rude in character, and formed by chipping rather than by grinding. Mr. Gooch, however, in a note cited by Mr. Sanderson, mentions seven or eight types of implements as found in Natal, and more than hints at the occurrence of Palæolithic instruments in that colony. It will, I think, be well to wait for further information before adopting any definite views upon this subject.

3 "Notes on some Rock Paintings in New Zealand," by Dr. Julius von Haast. There is a general similarity between these rock-paintings and those which have been observed in other savage countries, as for instance in Southern Africa, though in some respects these rank higher as "Works of Art" than those executed by the Bushmen. Curiously enough, those described in this paper occur in a rock-shelter which from its description must be much like one of the Caverns of the Dordogne, and more remarkable still is the fact that they are executed in red oxide of iron, which, as is well known, was used as a pigment by the cave-men of Southern France, as proved by the flint-scraped fragments of hematite of which so many specimens have been found. If, however, these early troglodytes used their red paint for mural decorations, these have long since perished, though their carvings and engravings in bone prove them to have had higher artistic skill than the New Zealand painters.

These latter also used a black pigment besides the red, though the sketches in black are ruder, and are thought to have been executed by a different race of men. Certainly both sets of paintings appear to be distinct from the usual Maori designs, and there is some probability that they may be of a mythological character, rather, than as is often the case, records of passing events.

4. "On Inductive Metrology," by Mr. Flinders Petrie. The object of the author was to call attention to a method of deducing from the measurements of ancient structures, the metrical unit in use among those who formed them. Where carefully constructed buildings, such as those of Egypt, Greece and Rome are still in existence, it seems in the highest degree probable that the length of the foot, cubit or other unit of measure may be recovered by means of the various dimensions of the rooms and walls of the building, as multiples of the unit or its aliquot parts are certain to have been employed where any system of measurement was in use. How far any such system may have been employed by those who constructed the early tumuli and earthworks of this and other countries is a question open to discussion—Mr. Petrie has however found that the units which he has deduced from the actual measurements of numerous different camps and earthworks, principally in our southern counties, have nearly coincided. It may however be the case that the step or pace, was in many instances the primitive unit, and with men of the same stature the variation in its length would be but slight. Perhaps a corresponding inference of the stature of the race who constructed these monuments, derived from the length of these paces, would not be entirely worthy of confidence. Mr. Petrie's remarks on the all but perfectly elliptical form of the camp near Orcheston are suggestive of some knowledge of geometry far beyond that which is usually assigned to primitive races. The drawing of a circle by means of a cord and central peg might, however, not unnaturally lead to the discovery of the method of drawing an ellipse by means of a cord and two fixed pegs, the tracing peg

being kept in its course by the doubled cord being held out to its fullest extent.

5. "The Game of Patolli in Ancient Mexico, and its probably Asiatic Origin," by Mr. E. B. Tylor, D.C.L., F.R.S. The history of our common games, such as chess and backgammon, going back as it does into highly remote ages, is one which is naturally of great interest and calculated to illustrate the different phases of human progress through which these games have survived. It is, however, not a little remarkable that the early Spanish invaders of Mexico should have found on their arrival in the new continent a game in common use which bore a striking likeness to the old game of "tables" as practised on the other side of the Atlantic. The same, or a closely analogous game, proves to have been in use also among the Indians of North America, but the most remarkable feature discovered by Mr. Tylor is the close resemblance of the *Patolli* of the Mexicans to the *Pachisi* of the Hindus. He shows the improbability of the game having been introduced into America by European intercourse, and suggests the possibility of Asiatic vessels having drifted across the Pacific to California, the sailors in which brought the game with them, and points out that if this were the case, other features of American culture may be due to Asiatic influence.

While speaking of games I may just mention the curious little square pieces of bone of which sets of four, one plain and the other three each differently marked, have been found by Sir Richard Colt Hoare\* in one of the Wiltshire barrows, and by the Rev. W. Greenwell† in one of those on the Yorkshire wolds. The latter were perforated, the others not, so that they can hardly have been beads. If, however, as seems extremely probable, these were pieces in use for some game, we have here another instance of comparatively wide prevalence of a particular game in remote times, and it may prove to be the case that when more is known of the contents of the grave mounds of the continent

\* "Ancient Wilts," I., p. 212.

† "British Barrows," p. 275.

of Europe, we shall find traces of its use in other countries than Britain.

6. "The Devil's Arrows, Yorkshire," by Mr. A. L. Lewis. This paper besides giving accurate measurements of this series of menhirs, within the last two centuries unfortunately reduced in number from five to three, gives also an account of the manner in which heavy monoliths are transported and erected at the present day by some of the hill tribes of India. By an ingeniously contrived system of framework, power is given for a large number of men to assist in the carriage of a block of stone, so much so, that one weighing twenty tons is said to have been carried bodily up a hill 4000 feet high in a few hours. The simplicity of the arrangement is such as to render it probable that similar means of transport may have been in use in early times. The fact of such blocks being still transported by manual labour at all events lessens any wonder that may arise as to how the large standing stones of this and other countries were brought into position.

7. "Report on the Excavation of a Twin Barrow and a Single Round Barrow, at Sigwell, Parish of Compton," by Professor Rolleston, F.R.S., and Major-General A. Lane Fox, F.R.S. These excavations, towards which the British Association made a grant of funds, have corroborated the fact already known that among the men of the Bronze Age who practised cremation, the bones were not always interred in urns, but occasionally either laid unprotected in the ground, or else collected in some envelope of more perishable material than pottery—in one instance in this case, in a coffer formed of bark. A camp in the immediate neighbourhood of the barrows, and referred to the Stone Age, or possibly to that of Bronze, is shown by General Lane Fox to have been constructed with the view of commanding the six springs or wells beneath it, from which Sigwell takes its name. Another small camp in the neighbourhood also covered a spring.

8. "Palæolithic Implements from the Gravels of North-East London," by Mr. Worthington G. Smith. The persevering

researches of the author have brought to light flint implements in various places within the valley of the Lea, the Lower Clapton and Shacklewell gravels having been the most prolific. The latter are of especial interest as containing beds in which the locally extinct *Corbicula fluminalis* occurs. Higher up the Lea valley, a few implements have been found, but the exact relation of the containing gravels to the glacial deposits of the district has not, I believe, as yet been determined. At least one of the pointed implements appears to have formed part of gravel from the neighbourhood of Hertford, though it was found on a road close to Finsbury Park. Since this communication was made to us, Mr. Smith has discovered a number of microscopic objects in gravel of the Lea valley at a depth of 12 feet from the surface, among them a portion of human hair. If this be, as is believed, of Palæolithic age, it exhibits in a marked degree the durability of such a substance under certain conditions. The success of Mr. Smith's microscopic investigations offers a great incentive for the prosecution of similar researches in other localities.

9. "Finds in Midian," by Captain Richard F. Burton. In this paper, besides giving some account of his recent travels in Midian, the author entered into the question of the existence of a Stone Age in Egypt and the adjacent countries. He also exhibited specimens of stone implements from Midian, which may or may not belong to a period when metals were unknown as materials for cutting tools. The skulls which he brought from Midian formed the subject of another paper.

#### ETHNOLOGY—*Five Papers.*

1. "On the Original Range of the Papuan and Negritto Races," by Mr. Francis A. Allen. These races, like so many others in the same stage of culture, seem destined either to absolute extinction, or to such a modification that their characteristics will be no longer recognisable. The view of the author is that at one time they occupied a far larger district

than that which they now occupy or even lately occupied. He would indeed connect them with the black races of Africa on the West, and regard them as reaching so far as America on the East. Certainly, some traces of a negroid population seem to exist over a large part of Southern Asia, and the remarkable passage in Herodotus as to the straight-haired Eastern Ethiopians from Asia, which is cited by Mr. Allen, offers much matter for consideration; but the whole subject is one into which it is impossible to enter in an address of this kind, even were it within my power to do so with any pretence to a wide knowledge of the facts of the case.

2. "The Spread of the Slaves, Part II. The Southern Serbs, Bosnians, Montenegrins, and Herzegovinians," by Mr. H. H. Howorth, F.S.A. At a time like the present, when so much attention is being directed to the question of the races occupying, what until lately formed Turkey in Europe, this paper is most opportune—and those who wish to comprehend the history and origin of the various subdivisions of the great Serbian stock will do well to study its details. The author's conclusions are, that the Croats, Bosnians, Montenegrins, and Herzegovinians had all one common origin in a race which first emigrated to the South of the Danube and the Save, about the beginning of the seventh century; that they were a race themselves incapable of originating or carrying out great innovations or great conquests, but were led and governed by a caste of foreigners; that these leaders belonged to the great Alanic family, from whom, indeed, the name of Serbs was derived, and lastly that the main body of the race is of the same stock as the Ruthenians of Galicia and its borders. In connection with this subject, I may perhaps venture to refer to "Through Bosnia and Montenegro on Foot," and the "Illyrian Letters," written by my son, with whose opinions Mr. Howorth in the main agrees, and from the pages of which he gives numerous quotations.

3. "The Bulgarians," by Dr. Beddoe, F.R.S. This paper, based partly on observations of Virchow and Kopernicki, and partly on those of the author himself, treats both of the physical



and moral characteristics of the Bulgarians. The crania differ from those of the Slaves and Turks, nor are they much like the Esthonian forms, but more nearly approach the Ugrian. Though possessing industry and ambition, the Bulgarians are regarded as ferocious rather than heroic; superstitious, rather than religious; and though susceptible of improvement, as at present devoid of manliness, generosity, and truthfulness, qualities which Russian interference does not seem calculated to promote.

4. "Report on Anthropological Proceedings at the Oriental Congress," by Mr. R. Cust. A useful digest of such papers and discussions at the Congress as bore upon our science.

5. "On the Evils arising from the use of Historical National Names as Scientific Terms," by Mr. A. L. Lewis. The author considers that although in early times there were at the least three primitive races in Europe, yet that even at a remote period they were already somewhat mixed, while at the present day their representatives appear not only in most European nations, but in the same families, and among children of the same parents. He therefore advocates the discontinuance of the use of political names as Ethnic names, and recommends the employment of terms based on the physical characteristics of the individual.

6. "Revised Nomenclature of the Inter-Oceanic Races," by the Rev. S. J. Whitmee. The author is disposed to abolish the terms Melanesian and Micronesian, retaining Polynesian, if thought necessary, as an equivalent for Inter-Oceanic. For the Eastern Polynesians and New Zealanders, he proposes the new term *Sa-why-ori*—compounded from Samoan, *Owhyhee*, and Maori; and for the North-Western Polynesians, that of *Tárapon*, formed from *Tarawah* and *Ponapi*. No doubt there are objections to names which, like that of *Malayo-Polynesians*, seem to involve a theory. There are however, objections also to the employment of new terms, where by some recognised restrictions the old can be brought into harmony with the facts. If new terms are accepted, those suggested by Mr. Whitmee seem well adapted for their purpose.

COMPARATIVE ANATOMY—*Four Papers.*

1. "On the Colouring Matters found in Human Hair," by Mr. H. C. Sorby, F.R.S. Among the few physiological papers which have been communicated to us, this is perhaps of the greatest interest and importance. The colour of the hair in different races of men has, as well as its general texture, been long regarded as an important characteristic. Little, however, has been known as to the chemical constituents of the colouring matter, though the connection between the colour of the hair and eyes has often been noticed, and the learned term of "*pigmentum nigrum*" has, as is not unfrequently the case with such terms, served to throw a kind of veil over our ignorance. Mr. Sorby has succeeded in discovering three or four distinct pigments in hair which serve to give to its horny basis the various colours with which we are familiar. One of these, the pink, is of a somewhat doubtful nature, but the brown-red, the yellow, and the black constituents seem to be satisfactorily established, though the character of the red and the yellow is somewhat unstable and liable to change under the action of heat and acids. The black constituent is much more stable, and appears to be a compound of Carbon, Hydrogen, Nitrogen, and Oxygen, which is disseminated in minute granules throughout the substance of the hair. It is not a little remarkable that, though in the feathers of the rook nearly the whole of the colouring matter is black, and only a small portion consists of brown-red pigment with a little yellow, yet in the hair of the Negro there is a considerable proportion of the red pigment; at all events, to ten times the extent in which it exists in the rook's feathers. The relationship between black and red hair was pointed out long ago by Dr. Beddoe. Red-haired Africans and Mulattoes are mentioned by Winterbottom and Blumenbach, and Prof. Boyd Dawkins informs me that at Aden, where it is the fashion for negroes to wear the hair perfectly white, by bleaching it with lime, it is not uncommon to see those in whom the process is

incomplete with heads of bright red hair. The question of comparatively sudden changes in the colour of the hair from dark to grey or white is still left unsolved, though looking at the constituents of the dark colouring matter, it appears quite possible that a comparatively simple chemical change in its composition might entirely remove the colour. The remarkable difference in the summer and winter colour of the hair of some Arctic animals, seems to show that such changes may readily occur; but the well-authenticated instances of those whose hair has grown "white in a single night, as men's have grown from sudden fears" are still uncommon, and any that may be observed would be well worthy of being brought under the notice of this Institute.

2. "Description of a Male Skeleton found at Cissbury," by Professor Rolleston, F.R.S. The history of the original owner of this skeleton, with platynemic tibia, flattened humeri, and a markedly dolichocephalic skull, must be sought in the paper itself.

3. "On a new method of finding the Cephalic Index," by Mr. G. M. Atkinson. This ingenious application of a geometric method for working out a sum in proportion, is well deserving of attention, and the instrument suggested may prove to be a handy "ready reckoner."

4. "Notes on Skulls from Midian," by Professor Owen, C.B. and Dr. C. Carter Blake. Many of these skulls are of no great antiquity, but exhibit several varieties of type. The flatness of the palate is a curious feature in one of the types.

5. "On Resemblances between a Galtcha and a Savoyard Skull," by Dr. Paul Topinard. The similarity between these skulls is such that the author is inclined to regard the Galtchas of Eastern Turkistan and the Celts of Western Europe as branches of one common stock, of which the Slavs of Eastern Europe are also members. Some remarks on Savoyard and Galtcha skulls, by M. Hovelacque and M. de Ujfalvy, will be found in the "*Revue d'Anthropologie*" for the present month.

BIOLOGY—*Five Papers.*

1. "On the Natural Sign Language of the Deaf and Dumb," by Professor Graham Bell. It is much to be regretted that this interesting paper, or rather lecture, was not susceptible of being reproduced in our Journal. It must, however, be evident that without a series of illustrations which would have been beyond our means, the essence of the lecture which consisted of manual signs and "dumb show" could not be given. To those who have been accustomed to the use of language all their life, it is difficult to form an idea as to the extent by which the power of thought is aided by the unconscious power of clothing it in words. Among deaf mutes it would seem that thoughts become embodied in mental pictures, which though originally confined to visible objects, may, to some extent, especially under instruction from those endowed with speech, be extended to abstract ideas. A study of the symbols in use among the deaf and dumb is well calculated to throw light on the origin of language, for even if there be a certain amount of conventionality imported into it, yet in order that a symbol should be of service, it must convey some fixed idea to the mind of the person using it, as well as prove useful to him in his intercourse with others. How far this has been the case with the code mainly devised by the Abbé de l'Épée, is proved by the fact that English and French deaf mutes are able to converse together, and the signs are for the most part intelligible to the North American Indians. Notwithstanding this advantage and the greater difficulty there must be in acquiring the power of reading a written language, the latter form of education is, I believe, being universally adopted, not only as enabling the deaf and dumb to understand the written thoughts of others, but as giving them also a far greater power of accurate thought than could be afforded by mere symbols, however well contrived.

2. "Composite Portraits," by Mr. Francis Galton, F.R.S. The author's ingenious process of combining the portraits of a

number of persons, either exhibiting the same mental peculiarities or belonging to one family, so as to form but a single portrait, giving the average features of the group, is one which has been most successful in its results. As affording the means of obtaining a portrait, combining the different peculiarities which have struck different artists, it gives us a means by which, in many cases, a more correct idea of the personal appearance of distinguished men of former generations can be obtained than could be gathered from any single portrait which has come down to us, or from several of them if uncombined. But for anthropological purposes the method appears to be one by which the typical characteristics of any race may be brought into prominence by the combination of the portraits of several individuals, and thus obtaining an average; and also, as Mr. Galton has suggested, it will prove of great service by enabling us to compare the average features of the produce with those of the parentage, and facilitate inquiries into the hereditary transmission of features. Mr. A. L. Austin, in New Zealand, has independently struck out nearly a similar plan to that of Mr. Galton, and his letter, which is published in the paper by the latter, will be read with interest.

3. "Polygamous Marriages in South Africa," by Mr. J. Sanderson. These observations on the number of the children resulting from polygamous marriages, and the proportions of the sexes among them, though perhaps not founded on a sufficiently wide basis, are of considerable interest and will, it is hoped, be further extended.

4. "On some American Illustrations of the Evolution of New Varieties of Man," by Professor Daniel Wilson, LL.D. The object of this paper is to call attention to the fact that the Red Man of America, who is so commonly regarded as being doomed to extinction, is to a certain extent being absorbed among the white races, and is destined to exercise an enduring influence on the ethnical character of the Euro-American races. In Manitoba, for instance, are tribes of half-breeds in what he terms "as it were the process of evolution." Though this may be true for

the moment, it remains to be seen how far the influence of this admixture will be apparent after some few centuries have elapsed. It appears more probable that unless there are in the Red Indian race some special features which adapt it to the climate and surroundings, its traces will almost entirely disappear, and when the influence of constant arrivals of European Colonists ceases to be felt, the type of the white race occupying North America will become more specialized under local and climatic influences.

5. "Left-handed Races," by Dr Muirhead. This paper, containing some facts as to the prevalence of left-handedness in certain families, is closely allied to the paper on right-handedness communicated to this Institute last year by Mr. Shaw. As I observed in my last address, the habit of using the left hand in preference to the right, though possibly to some extent connected with the greater supply of blood to one side than the other, is more often the result of the manner in which the individual has been carried in infancy. A mother or nurse-maid, in order that her own right arm may be free, carries a baby on her left with its face towards her, thus leaving only its left arm at liberty and rendering its use, instead of the right arm, obligatory if the child is to make any use at all of the arm or hand. The habit thus acquired becomes fixed, and were it not for subsequent correction the number of left-handed persons among us would, I think, be far greater than it is.

PHILOLOGY.—*Two Papers.*

1. "A Vocabulary of the Zaparo Language," by Mr. A. Simson. This Glossary has already been mentioned.

2. "On some Characters tattooed on a Motu Woman," by Mr. J. Park Harrison. Among the figures tattooed on a Motu girl, carefully copied by Dr. Turner and engraved in our Journal, the author has pointed out a striking similarity to some literal forms in Sumatran, Indian and Phœnician alphabets. How far these New Guinea symbols may be relics of written characters, or how



far they may be the chance results of the combination of straight lines of nearly equal length so as to form a kind of geometrical ornament, is a question which has yet to be solved. A larger field of induction than that we at present possess appears to be highly desirable.

SOCIOLOGY.—*Five Papers.*

1. "The Pre-historic Civilisation of Babylonia," by Mr. W. St. Chad Boscawen. The cuneiform inscriptions of Babylonia, like the hieroglyphic writings of Egypt, seem destined not only to give us an accurate knowledge of much of the history of each country, but also to throw great light on the development of the art of writing; and by examination of the early pictorial forms of common objects, to illustrate the manners and customs of the early period when the characters were first adopted. The transition from the pictorial to the more conventional forms may be as readily traced in the Babylonian as in the Egyptian or Chinese Syllabaries, and Mr. Boscawen has done good service in directing our attention to this source of information as to the social life of those who devised the ideographs.

They belong to a period when a settled rather than a nomadic form of life had already been adopted, as is testified by the symbols for houses, estates, and even methods of irrigation:—Sheep and oxen were domestic animals; more than one kind of grain was known; and the city life was so far organised that the watchman was symbolised as the man "who goes to and fro."

We must not, therefore, expect that such symbols should throw light on the habits of their style in a state of absolute barbarism. It is rather some of the earliest stages of what may be rightly termed civilisation that are thus illustrated; and indeed we can hardly conceive of the development of any system even of pictorial writing among those in a lower stage than that represented in modern times by the North American Indian.

2. "The Origin of the Classificatory System of Relationships

used among Primitive Peoples," by Mr. C. Staniland Wake. In this elaborate paper, the author discusses the question of the probable origin of those remarkable systems of classification of relationships which prevail among the Hawaiians and other Polynesians, as well as among the Australians, the Malays, and the Chinese. It would be superfluous here to enter into the details either of the different classifications or of the reasons assigned for their existence. Mr. Wake, however, arrives at conclusions which to a considerable extent differ from those of Mr. Morgan, in America, and Mr. McLennan and Sir John Lubbock in this country. Though kinship in his opinion may, for certain purposes, have been originally traced through the mother—as being the parent which a wise child can proverbially most easily recognise—yet he regards the regulations as to marriage as based on the relation of the father to the child, and thinks that in the ideas which gave rise to those regulations also originated the classificatory system of relationships.

3. "Buddhism in the British Provinces of Little Tibet," by Colonel E. Paske. This paper, by an author for some time resident in the country of which he treats, will be found to contain some interesting details, though, perhaps, not so much of novelty as if Buddhism were now for the first time observed. The extent of the manis or dykes on which votive slabs are deposited, some in Ladakh being upwards of 800 paces in length—the necessity of moving to the right, whether in depositing a votive slab or in turning a Prayer Cylinder—the deposit of prayer flags on the highest accessible points, and the manner in which a Lama is made to form his own monument by his ashes being kneaded up with clay so as to form a "medallion figure," may be mentioned as points of interest.

4. "Ethnological Hints afforded by the Stimulants of the Ancients and the Modern Savages," by A. W. Buckland. This paper, which may be regarded as arising out of one by the same author on Primitive Agriculture, mentioned last year in my address, treats of the various stimulants that have been in use by man from the earliest times. The invention of fermented

drinks is thought to date back to the time when first the agricultural stage was attained by some members of the human race, though koumiss and mead may belong to the pastoral or even the hunting stage. The various methods by which exhilarating and intoxicating drinks are produced, and the various materials employed, form the subject of a curious chapter in the history of man, who, as Byron says, "being reasonable, must get drunk."

5. "On Circumcision: Its significance, its origin, and its kindred rites," by Mr. E. Reclus. The practice of this custom has been traced over a large part of the inhabited globe, including Australia and South America, though among nations of antiquity the Egyptians and Jews are the nations among whom it is best known to have prevailed. For the author's views as to the origin of the practice, I must refer you to his paper. It seems to me, however, that probably more than one reason may have existed for its adoption among peoples so widely separated, though the views of the author as to its religious significance, in many cases, will commend themselves to most of his readers.

I have now given a brief, and I fear somewhat imperfect, account of the thirty-five papers which have been communicated to us since last I had the honour of addressing you, and I think that the Institute may well be congratulated upon their character. The proportion of Ethnological, Biological, and Sociological papers to those of a more purely Archæological character is considerably greater this year than last; which also I regard as a healthy symptom. Speaking generally, there appears to me a gradually increasing popular appreciation of the interest and importance of those Anthropological and Ethnological questions which it is our province here to discuss, and I hope that this appreciation may eventually lead to an increase in the number of our Members. I would venture to take this opportunity of impressing upon those who are interested in our pursuits, that the inability to attend our meetings and to take part in our discussions is no bar to membership, and that we shall gladly receive accessions of country members, who will find in our

Journal a record of all that passes in these rooms, and a medium of conveying to the world any communications of interest which they may wish to address to us. The slight difference in expense between purchasing our Journal from a bookseller and receiving it of right as a Member, ought not to deter anyone who is interested in Anthropology from joining our body, and thus promoting the advance of our science.

The exhibition, which during last year was held in Paris, must have awakened, in many of those who visited it, a desire to know more of the interest attaching to the collections there exhibited, and their bearing on the history of the human race, and it is to be hoped that in this country, as well as in France, benefits may result to the science of Anthropology.

The special exhibition organised by the Paris Anthropological Society was remarkably complete and successful. The treasures of the numerous local museums and private collections in France were there gathered together in wonderful abundance, and opportunity afforded for study and comparison such as never was known before, and will probably hardly ever again occur. Nor were other countries unrepresented, though of course geographical reasons as well as the great popularity of all anthropological studies in France enabled that country to stand pre-eminent. The course of lectures given in the building by M. Gabriel de Mortillet were I believe well attended, and much enhanced the value of the collection to those who were so fortunate as to attend the lectures. It is perhaps to be regretted that the collections illustrative of the early history of man were not all placed together, but divided between the Exposition des Sciences Anthropologiques, and the Galleries of the Trocadéro. This division may, however, have had the effect of calling the attention of a greater number of visitors to the subject, and certainly either of the divisions alone was enough to repay any foreign anthropologist for a journey to Paris.

The advantages of such a collection having been brought together would have been much enhanced by a comprehensive

catalogue which, however, owing to the delays attendant on the construction of the exhibition building, it appears to have been found impracticable to produce. It is to be hoped that our colleagues in Paris may yet publish some durable and complete record of the principal features of the collection.

The International Congress of Anthropological Science held in Paris under the presidency of Dr. Paul Broca was very successful, though it is much to be regretted that this country was so poorly represented at it. No doubt this was to some extent due to the fact that the Congress was held during the month of August, precisely at the time when the meeting of the British Association was being held in Dublin.

I may mention that it is proposed to organise another Anthropological Exhibition during the summer of the present year at Moscow. Those of our members who from time to time have attended the Congress of Anthropology and Pre-historic Archæology, which last was held at Buda Pesth, will be glad to learn that the Portuguese Government has decided to receive the Congress at Lisbon in 1880. May its meeting be as well attended, as pleasant and prosperous as were those at Stockholm and Buda Pesth!

The Folklore Society, the formation of which I mentioned in my address last year, is now fairly started, and the "Folklore Record," Part I, has already been published. It contains much matter that will be of interest to the members of this Institute, and will, I hope, be followed by many more volumes equally instructive and important.

Another Folklore Society is now in course of formation in a distant part of the globe, where, however, there seems to be great scope for its labours, and where its foundation seems most opportune. The existence of a rich store of traditions and myths among the natives of South Africa has long been known, but each successive year of European intercourse reduces the chance of its surviving in a written form. The South African Folklore Society is being formed just in time to preserve these curious native traditions, and it is to be hoped

that its journal, which is to appear six times a-year, may meet with due support. The annual subscription is, I believe, only four shillings, exclusive of postage, and the Secretary is Miss L. C. Lloyd, of Cape Town.

In my address to you last year, I mentioned the fact that Mr. Everett, a well-known naturalist, had consented to devote a twelvemonth to the prosecution of cave researches in Borneo, and that a fund was being raised to provide the necessary expenses, which will fall but little, if anything, short of £400. I have now to report that he commenced his labours early in October, and that he has already made more or less extensive excavations in several caves, the principal proceeds from which are now on their way to this country. I last night received Mr. Everett's first quarterly report, but have not yet had time to examine its contents. I may mention the discovery of numerous mammalian remains, the age of which has still to be determined, and also of remains of a race of men of whom no local tradition seems to be extant, and who habitually used the caves of Upper Saráwak, either as domiciles, or as places of sepulture, or possibly for other purposes. Though unknown to history or tradition, this race of men appears to have been acquainted with the use of manufactured iron, so that probably no great antiquity is to be assigned to the remains already discovered. I forbear from speculating on what further discoveries may be made, but I may congratulate the subscribers to the fund on the work being satisfactorily commenced. With regard to the fund itself, I venture to take this opportunity of stating that at least £100 more has to be forthcoming, and that I shall be happy to receive subscriptions. I may add that the British Association, following the example of the Royal Society, has voted £50 to the fund, which has also already received the support of many of the members of this Institute.

I cannot conclude this address without making some mention of the sad losses which this Institute and all those attached to the subject of prehistoric Archæology have sustained by death



within the last twelve months. The Report of the Council has already called attention to two of those losses—those of Mr. William Blackmore and Mr. E. T. Stevens. Closely connected together through marriage, as well as by kindred pursuits, and both of them in the prime of life, it is doubly sad that the loss of the one should so soon have followed that of the other. In Mr. William Blackmore we have lost a discerning and liberal promoter of anthropological science, and those among us who have visited the Blackmore Museum at Salisbury, founded and I believe mainly endowed through his liberality, will have no difficulty in appreciating how much the study of prehistoric archaeology in this country is indebted to his labours and munificence. Those who have not had the opportunity of visiting the Collection will probably have made some acquaintance with it through Mr. E. T. Stevens's Guide, or his more comprehensive work, "*Flint Chips*," perhaps the best manual of the kind which has appeared in the English language, or indeed in any other. Those who, like myself, were personally acquainted with both these gentlemen, must feel that in them we have lost enthusiastic but judicious fellow-workers, whose places in the circle of our scientific acquaintance it is impossible ever to refill.

There is one other name which I must add, though he who bore it was not a member of this Institute—Mr. James Wyatt, of Bedford. It is now nearly twenty years ago since the discovery of palæolithic implements in ancient river gravels became an accepted fact in science, and among the spots in England first visited by Professor Prestwich and myself as likely to be productive of them were Bedford and Salisbury. Although at the time we were unsuccessful in our researches, the persevering industry of Mr. Stevens and his colleagues in the one place, and of Mr. Wyatt in the other, resulted in bringing numerous specimens to light, and largely extended the known range of the implement-bearing deposits. I can well remember the delight with which the first discoveries in Bedfordshire and Wilts were hailed by those who had given in their adhesion to the antiquity and authenticity of the palæolithic implements, and the enthusiasm with which

further search was prosecuted, and by none with greater intelligence and zeal than by Mr. Wyatt and Mr. Stevens, whose loss I shall long deplore. It is singular and sad that after so many years their names should again be associated under such different circumstances.

Of foreigners I must also mention one whose name is well known to the members of this Institute, the accomplished Professor Gastaldi, of Turin, whose work on the Lake Habitations and Pre-historic Remains of Northern and Central Italy was translated by Mr. Chambers, and published by the Anthropological Society in 1865.

Turning now from this sad retrospect, I will only add a few more words on the future prospects of this Institute. Looking at the fact that we are now the only Society in Great Britain which specially deals either with Ethnology or Anthropology, and looking at the advances which the study of those branches of science is making in foreign countries, and especially in France and Germany, I must confess to having some misgivings lest this country should appear to be left behind in the race. It is not, I think, that there are in any way wanting among us masters of the science quite as competent as any of those on the Continent and quite as devoted to its interests, but as I can testify from personal experience, there are in some cases other necessary pursuits which absorb too much of the time that would be gladly devoted to science, and in others, perhaps, the importance is not fully appreciated of making the Anthropological Institute and its publications—as being the principal if not indeed the only representatives of anthropological science in this country—hold their due rank in the friendly competition with neighbouring nations. However that may be, I feel that in vacating this chair in favour of anyone with more time at his disposal, and with more specialised anthropological knowledge than I possess, I am doing the Institute a service, and I cannot but look forward with pleasure to the probable welfare of this Society under one whose researches into the Primitive Culture and Early History of Man have

deservedly earned him so wide and distinguished a reputation as Mr. E. B. Tylor.

Mr. A. TYLOR moved, and Prof. FLOWER seconded a vote of thanks to the President; and that the Address be printed in the Journal of the Institute.

Carried by acclamation.

The Scrutineers then brought in their report of the ballot, and the following gentlemen were declared to be duly elected to serve for the ensuing year:—

*President.*—E. Burnett Tylor, Esq., D.C.L., F.R.S.

*Vice-Presidents.*—Hyde Clarke, Esq.; John Evans, Esq., D.C.L., F.R.S.; Prof. W. H. Flower, LL.D., F.R.S.; Major-General A. Lane Fox, F.R.S.; Francis Galton, Esq., F.R.S.; Prof. Rolleston, M.D., F.R.S.

*Directors and Hon. Secs.*—E. W. Brabrook, Esq., F.S.A.; W. L. Distant, Esq.; J. E. Price, Esq., F.S.A.

*Treasurer.*—F. G. Hilton Price, Esq., F.G.S.

*Council.*—Lieut.-Col. H. Godwin Austen; John Beddoe, Esq., M.D., F.R.S.; Prof. George Busk, F.R.S.; C. H. E. Carmichael, Esq., M.A., F.R.S.L.; J. Barnard Davis, Esq., M.D., F.R.S.; Prof. W. Boyd Dawkins, F.R.S.; Captain Harold Dillon, F.S.A.; A. W. Franks, Esq., M.A., F.R.S.; J. Park Harrison, Esq., M.A.; Prof. Huxley, LL.D., F.R.S.; A. L. Lewis, Esq.; Sir John Lubbock, Bart., M.P., D.C.L., F.R.S.; R. Biddulph Martin, Esq.; F. W. Rudler, Esq., F.G.S.; C. Robert des Ruffières, Esq., F.R.S.L.; Lord Arthur Russell, M.P.; Rev. Prof. Sayce, M.A., M.R.A.S.; Dr. Allen Thomson, F.R.S.; C. Staniland Wake, Esq.; M. J. Walhouse, Esq., F.R.A.S.

On the motion of Mr. E. BURNETT TYLOR, seconded by Mr. W. L. DISTANT, thanks were returned to the scrutineers.

On the motion of Mr. BRABROOK, seconded by Mr. J. E. PRICE, thanks were returned to the retiring members of Council, and was carried unanimously.

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## ANTHROPOLOGICAL MISCELLANEA.

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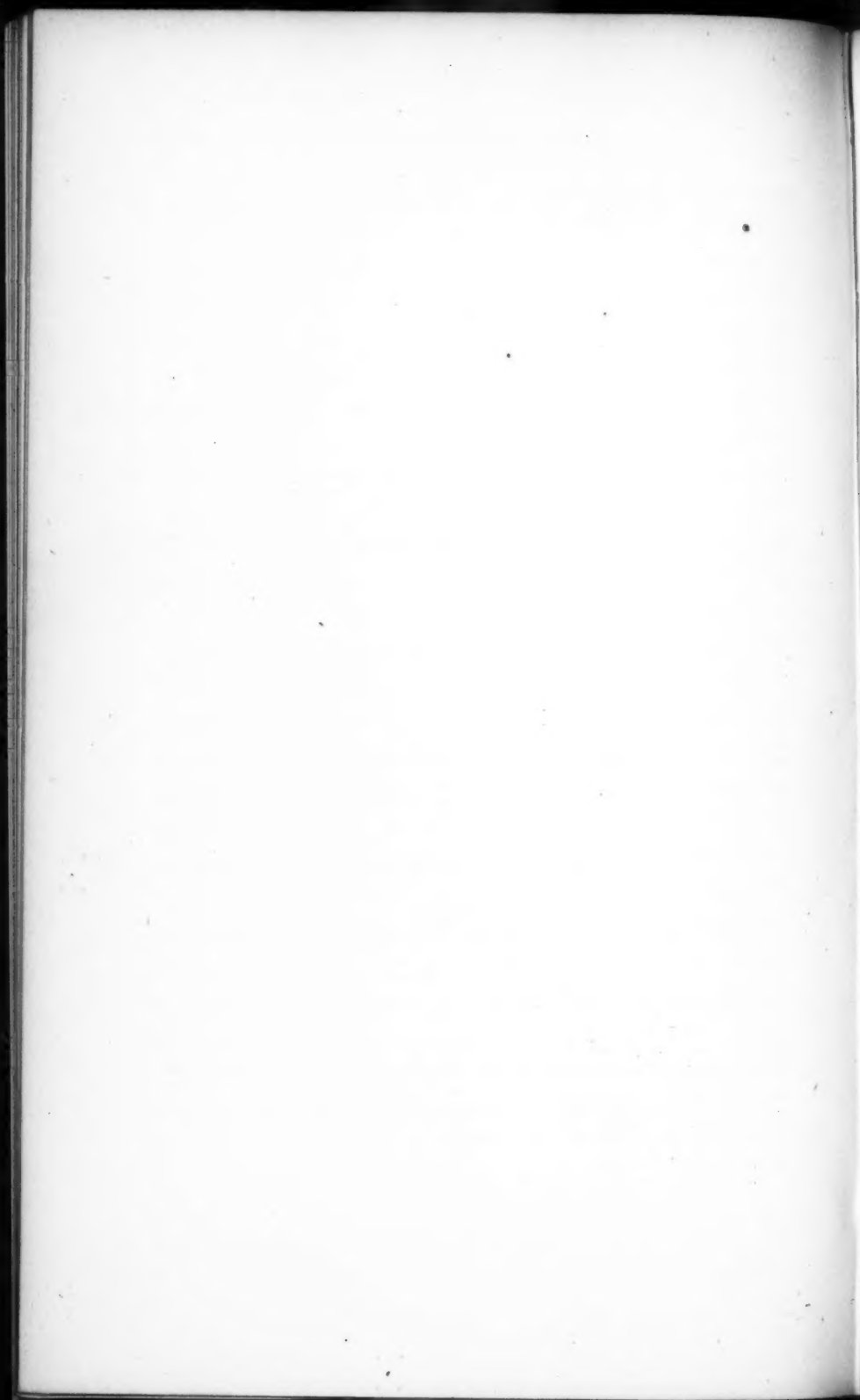
DESCRIPTION OF A VILLAGE OF THE HYDAH INDIANS, NEAR SKEDIGATE BAY IN GRAHAM ISLAND, ONE OF THE QUEEN CHARLOTTE'S ISLANDS, OFF BRITISH COLUMBIA, from "The Sea of Mountains; an Account of Lord Dufferin's Tour through British Columbia in 1876." By M. St. John, Vol. II, 27, *et seq.*

"The village consists of about forty houses, each of which contains several families, as we found to be the case in most of these Indian settlements, and these houses are built in one continuous line, some little distance above high water mark. There are a few smaller houses or storehouses behind the others, but that which attracts the eye and rivets the attention at once, is the array of carved cedar pillars and crested monuments that rise in profusion throughout the length of the village. In the centre of the front face of every house was an upright pillar of cedar, generally about forty feet high, and from two to three feet in diameter. From base to top these pillars had been made to take the forms of animals and birds, and huge grotesque human figures, resembling somewhat the colossal figures recovered by the excavation at Nineveh. The birds and reptiles, curious and unlike as they were any that the Indians themselves see, one could understand; but there were griffins and other fabulous animals represented, that one would have imagined the carvers thereof had never heard of. The carvings were in some places elaborate, and in many places coloured. Some of the pillars a few yards in front of the houses were surmounted by life-size representations of birds or animals, the token of the family, coloured in a fanciful manner. In one or two instances there were outline carvings on a board surmounting a pillar, as a picture might be set on the top of a post. The main and tallest pillars, however, were those of which one formed the centre of each house, and through which entrance was had into the interior. Many of the rafters of the houses protruded beyond the eaves, and terminated in some grotesque piece of carving. The Indians could not tell the age of this village, nor had they any tradition on the subject, so far as we could discover. The village must, however, be some hundreds of

years old, for the cedar rafters in some houses were crumbling to pieces, and cedar lasts for centuries. Many of the pillars bore signs of being very old, but they are usually sound. Indian villages are usually so essentially only places of shelter against inclement weather, that the appearance of an Indian town of such indisputable age and with such evidences of dexterity in a branch of art, gave rise to endless wonderment and surmise. Whence did the Hydahs obtain the models from which they have copied, since they never could have seen what they carved about their dwellings? One of the party purchased a walking-stick with a small piece of workmanship on the handle, but the Indians passed it about amongst themselves, and none could tell what animal it was intended to represent. It seemed as if the parentage of the carving may have been in China, for one or two of the squatting figures had the same leer on their countenances that one sometimes sees on the figures in a Chinese Joss House." The Hydahs of Queen Charlotte's Islands are a fierce and turbulent nation, and the most feared of any natives on those coasts; they build enormous sea canoes, capable of holding thirty or forty warriors, and with their fleets used to sweep all the North Pacific coasts as far as Vancouver's Island, and the posts of the Hudson's Bay Company.

The Tsimshéan Indians occupy the mainland of British Columbia, opposite the Queen Charlotte's Islands. The "Medicine-men" amongst them are still cannibals, and in orgies of hideous excitement, tear human bodies asunder with their teeth, and make a horrible feast of the fragments; the carved pillars and "crested monuments" described above, are found, though less characteristic and elaborate, in their villages also; and in a notice compiled by the Rev. J. Halcombe from the records of the Church Missionary Society, it is explained that with respect to the various devices "each crest is ruled over by four or five chiefs, one of whom takes precedence of all the others on ordinary occasions, and represents the crests in any general gathering. Among the representative chiefs, one again is always recognised as 'the chief of chiefs.' A chief's rank is marked by the height of the pole erected in front of his house, on which the crest which distinguishes his division of the tribe is carved. No offence leads to more frequent quarrels than the attempt on the part of a chief to put up a pole higher than his rank warrants. The animals most commonly selected as a crest are the porpoise, the eagle, the wolf, and the frog. The social relations of the people are in many ways regulated by this curious method of classification. Thus *e.g.*, members of the same crest may not intermarry. A whale may marry a frog; but the union of two whales or two frogs would be entirely without precedent."

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# INDEX.

## A.

- Africa, Polygamous marriages in South, 254.  
 Allen, Mr. Francis A., the original range of the Papuan and Negritto races, 38; rock paintings in New Zealand, 64.  
 Ancient remains, metrology and geometry in, 106.  
 Annual General Meeting, Presidential Address, 396.  
 American illustrations of the evolution of new varieties of man, 338.  
 Anthropological gleanings: native races of the Pacific Ocean, 96; origin and migrations of the Polynesian nation, 98; leprosy as observed in the Sandwich Islands, 98; Marquesan tradition of the Deluge, 99; the Nyassa and a journey from the North End to Zanzibar, 99; the population, prospect, and future government of the Transvaal, 100; the Hill Canton of Sálár, 100; travels in Western China and on the borders of Eastern Tibet, 100; dangers from colour-blindness, 100; Illyrian letters, 101; recent find of skulls and skeletons in Ohio, 101; pre-historic burial place with cruciform monoliths, near Mungapet, in the Nizam's Dominion, 102; the graves of Heitsi-eibib, 103.  
 Anthropological proceedings at the Oriental Congress, 1878, 285.  
 Asiatic origin, the Game of Patolli in ancient Mexico and its probably, 116.  
 Atkinson, Mr. G. M., on a scale to find cranial indices, 279.  
 Australia, Illustrations of the Mode of Preserving the Dead in South, 377.

## B.

- Babylonia, pre-historic civilization of, 21.  
 Beddoe, Dr. John, the Bulgarians, 232; stimulants in use among savages and among the ancients, 254.  
 Bell, Prof. A. Graham, on the natural sign language of the deaf and dumb, 37.  
 Bird-shaped mounds in Putnam county, Georgia, U.S. America, 92.  
 Boscawen, Mr. W. St. Chad, pre-historic civilization of Babylonia, 21.  
 Buckland, Miss A. W., ethnological hints afforded by the stimulants in use among savages and among the ancients, 239.  
 Buddhism in the British provinces of Little Tibet, 195.  
 Bulgarians, the, 232.  
 Burton, Capt. R.F., stones and bones from Egypt and Midian, 290.  
 Busk, Prof. G., notes on a skull termed Nabathæan, 321.

## C.

- Chinese view of heredity and education, a modern, 228.  
 Ciasbury, Notes on Skeleton found at, 377.  
 Clarke, Mr. Hyde, on the original range of the Papuan and Negritto races, 49; the game of patolli in ancient Mexico, 131; composite portraits, 144; classificatory system of relationships used among primitive peoples, 180; Buddhism in the British provinces of Little Tibet.

- 209; the Zaparo vocabulary, 227;  
 Illustrations of the Mode of Preserving the Dead, 382.  
 Composite portraits, 132.  
 Cranial indices, a scale to find, 279.  
 Cust, Mr. Robert, report on Anthropological proceedings at the Oriental Congress held at Florence, September 12-18, 1878, 285.

## D.

- Darnley Island, illustrations of the Mode of Preserving the Dead in, 389.  
 Discussions, 13, 48, 64, 115, 129, 142, 209, 238, 254, 260, 282, 290, 334, 367, 376, 388, 394.  
 Distant, Mr. W. L., Anthropological Gleanings, 96; the People inhabiting the interior of the Great Nicobar Island, 336.  
 Devil's arrows, the, 180.  
 DuCane, Sir Edmund, on composite portraits, 142.

## E.

- East, notes on skulls from the, 319, 323.  
 Egypt and Midian, stones and bones from, 290.  
 Ethnological hints afforded by the stimulants in use among savages and among the ancients, 239.  
 Ethnological notes on the Motu, Koitapu, and Koiali tribes of New Guinea, 369.  
 Ethnology of Polynesia, 261.  
 Evans, Dr. Sebastian, on the Bulgarians, 238.  
 Evolution of new varieties of man, 338.  
 Exhibitions: stone implements from Natal, 15; flint implements from Ditchley, Oxfordshire, 184; flint implements from the drift gravel of the Lea Valley, near Clapton, 184; a carved stone object, which was stated to have been received from Central America, 210; flint implements from Canada and the United States, America, 377.

## F.

- Financial statement for 1878, 397.  
 Flint implements from Ditchley, 184; the Valley of the Lea, 184; Canada and the United States, America, 377.  
 Flower, Prof. W. H., the ethnology of Polynesia, 274; on a scale to find cranial indices, 282; a Revised Nomenclature of the Inter-Oceanic Races of Man, 368; ethnological notes on the Motu, Koitapu, and Koiali tribes of New Guinea, 376; on Skeleton found at Cissbury, 388; Illustrations of the Mode of Preserving the Dead in Darnley Island and in South Australia, 389.  
 Fox, Major-Gen. A. Lane, on rock paintings in New Zealand, 64; report on excavation at Sigwell, 185.

## G.

- Galton, Mr. Francis, composite portraits, made by combining those of many different persons into a single resultant figure, 132.  
 Godwin-Austen, Lieut.-Col. H., the Papuan and Negritto races, 49; on the Mexican game of patolli, 129; Buddhism in the British provinces of Little Tibet, 209.

## H.

- Haast, Dr. Julius von, notes on some ancient rock paintings in New Zealand, 50.  
 Hair, colouring matters found in human, 1.  
 Harrison, Mr. J. Park, on Skeleton found at Cissbury, 388.  
 Heredity and Education, a modern Chinese view on, 228.  
 Historical national names as scientific terms, 325.  
 Holt, Mr. Robert B., Buddhism in the British provinces of Little Tibet, 218.  
 Howorth, Mr. H. H., the spread of the slaves, Part II, 65.  
 Hydah Indians, Description of a Village of the, 426.

## I.

- Implements, stone, from Natal, 15.  
 — Flint, from Dytchley, Oxfordshire, 184.

Implements, Flint, from the Valley of the Lea, 184.

— Flint, from Canada and the United States, America, 377.

## J.

Jones, the Hon. Charles C., Jun., bird-shaped mounds in Putnam county, Georgia, U.S. America, 92.

## K.

Koiali, ethnological notes on the, 369, dwellings, 374; food, 375; polygamy, 375; burial, 375.

Koitapu, ethnological notes on the, 369; dwellings, 371; physique, language, 371; food and cooking, 371; ornaments, 372; hair, 372; weapons and manufactures, 373; pottery, 373; canoes, 373.

## L.

Lawes, Rev. W. G., ethnological notes on the Motu, Koitapu, and Koiali Tribes of New Guinea, 369.

Lea, palaeolithic implements from the valley of the, 275.

Lewis, Mr. A. L., on colouring matters found in human hair, 13; the Devil's Arrows, Yorkshire, 181; polygamous marriages in South Africa, 260; historical national names as scientific terms, 325.

## M.

Man, some American illustrations of the evolution of new varieties of, 338.

Marriages, in South Africa, polygamous, 254.

Martin, Mr. R. B., historical national names as scientific terms, 334; on Skeleton found at Cissbury, 388.

Meetings, ordinary, 1, 14, 37, 38, 105, 131, 183, 194, 231, 261, 282, 224, 337, 359, 395.

Metrology and geometry in ancient remains, 106.

Mexico, the game of patolli in ancient, 116.

Midian, stones and bones from Egypt and, 290.

VOL. VIII.

Moggridge, Mr. M., the original range of the Papuan, 49; rock paintings in New Zealand, 65.

Motu, ethnological notes on the, 369; tattooing, 369; burial, 370; legends, 370.

Mounds, bird-shaped, 92.

## N.

Natal, stone implements from, 15.

New Guinea, ethnological notes on the Motu, Koitapu, and Koiali tribes of, 369.

New Zealand, rock paintings in, 50.

Nicobar Island, the People inhabiting the interior of the Great, 336.

Notes in connection with stone implements from Natal, 15.

— on some ancient rock paintings in New Zealand, 50.

— on skulls from the East, 319, 323.

— on the Piojés of the Putumayo, 210.

— on Skeleton found at Cissbury, 377.

## O.

Oceanic races of men, revised nomenclature of the inter-, 360.

Oriental congress, anthropological proceedings at the, 285.

Original range of the Papuan and Negritto races, 38.

Owen, Prof. R., observations on the collection of skulls from the East, 323.

## P.

Palaeolithic implements from the Valley of the Lea, 275.

Papuan and Negritto races, 38.

Paske, Col. E., Buddhism in the British Provinces of Little Tibet, 195.

Petrie, Mr. W. M. Flinders, on metrology and geometry in ancient remains, 106.

Piojés of the Putumayo, 211.

Polygamous marriages in South Africa, 254.

Polynesia, the ethnology of, 261.

Pre-historic civilisation of Babylonia, 21.

Primitive peoples, the origin of the classificatory system of relationships, 144.

Putumayo, the Piojés of the, 210.

2 G

## R.

- Report of Council for 1878, 398.  
 Report on excavation at Sigwell, 185.  
 Rock paintings in New Zealand, 50.  
 Rolleston, Prof. G., description of a male skeleton found at Cissbury, 184; report on excavation at Sigwell, 185; Notes on Skeleton found at Cissbury, April, 1878, 377.  
 Rosehill, Lord, on Skeleton found at Cissbury, 388.

## S.

- Sanderson, Mr. John, notes on stone implements from Natal, 15; Polygamous marriages in South Africa, 254.  
 Scientific terms, the evils arising from the use of historical national names as, 325.  
 Sigwell, report on excavations at, 185.  
 Simson, Mr. Alfred, notes on the Piojés of the Putumayo, 210.  
 Skulls, notes on, 319, 321, 323.  
 Slaves, the spread of the, Part II, 65.  
 Smith, Mr. Worthington G., Palæolithic implements from the Valley of the Lea, 275.  
 Sorby, Mr. H. C., on colouring matter found in human hair, 1.  
 Stones and bones from Egypt and Midian, 290.  
 Stone implements from Natal, 15.  
 Swinton, Mr. R. B., on the classificatory system of relationships used among primitive peoples, 180.

## T.

- Thomson, Dr. Allen, historical national names as scientific terms, 335.  
 Tibet, Little, Buddhism in the British provinces of, 195.  
 Tylor, Dr. E. Burnett, on metrology, &c., in ancient remains, 115; on the game of patolli in Ancient Mexico, and its probably Asiatic origin, 116; historical national names as scientific terms, 334.

## W.

- Wake, Mr. C. Staniland, on the origin of the classificatory system of relationships used among primitive peoples, 144.  
 Walford, Mr. Cornelius, on colouring matter found in human hair, 13; on composite portraits, 143.  
 Walhouse, Mr. M. J., rock paintings in New Zealand, 64.  
 Wallace, Mr. A. R., revised nomenclature of the Inter-Oceanic races of men, 367; ethnological notes on New Guinea, 377.  
 Whitmee, Rev. S. J., the ethnology of Polynesia, 261; revised nomenclature of the Inter-Oceanic races of men, 360.  
 Wilson, Dr. Daniel, some American illustrations of the evolution of new varieties of man, 338.  
 Wyatt-Edgell, Rev. Edgell, on Buddhism in Little Tibet, 195.

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